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THE PSYCHO-NEUROSES OF WAR.[1]

By W. R. Regnell, M.A., M.D. (Oxon.), M.R.C.P. (Lond.),
Adelaide.

The subject I have taken for my paper to-night is, I am afraid, far too large to be dealt with even superficially in the course of a single lecture, so I propose merely to touch lightly upon a few of the more important aspects of this immense and most fascinating field of study which has been investigated so fully at the special neurological hospitals in England and France during the last four years.

The war has taught the physician many things; taught him to realize as never before how immense is the influence of the mind upon the body.

Any symptom caused by injury or disease may be unconsciously exaggerated so that the resulting condition is partly organic and partly functional; or it may be perpetuated after the original organic condition has disappeared entirely, so that it ends by being entirely functional and, being functional, it is curable by psycho-therapy.

If these facts were more widely recognized, there would be far fewer 100% pensioners in England, and I have no doubt that the same is to some extent true in Australia.

More than 30,000 soldiers have been discharged from the British Army for shell shock and neurasthenia and most of these are receiving large pensions, chiefly because there were scarcely any special neurological hospitals in England during the first years of the war and the majority of men suffering from shell shock were discharged from the Army with their disability uncured or incompletely cured. At Seale Hayne Hospital, Newton Abbot, Devon, we made it a rule to keep a man in hospital until he was fit to return to duty or direct to his civilian occupation. Of patients discharged from the service very few, indeed, needed a pension at all, but many of them were given one of 20% or less.

In the French Medical Service no pension is given to any soldier with functional nervous disease and it is a great pity that we did not follow their example. When a man with a functional disability becomes a pensioner with a large pension, he is often a very difficult patient to cure.

There is no need for me to dwell on the frequency of functional nervous disorders. It has been estimated that at any large base hospital in France during the war there would be 12% to 14% of such cases. In addition to these there is the very large class of functional orthopædic patients, such as constitute the majority of Colonel Strangman's patients at Keswick and Torrens Park. Two-thirds of the soldiers discharged from the British Army during the first four years of war were unwounded men. A very considerable proportion of these patients suffered from functional nervous disorders.

Without attempting any scientific classification of war neuroses, we may divide the cases we are likely to come across into three groups: neurasthenia, hysteria and psychasthenia.

Before going further I would like to define these terms which are often used in a most haphazard fashion.

Neurasthenia.

Neurasthenia is a functional nervous disorder, resulting from exhaustion of the nervous system and probably of certain endocrine glands, especially the suprarenals. It manifests itself by an abnormal tendency to mental and physical fatigue and irritability of the nervous system.

Everyone knows the picture of the typical neurasthenic with his pale face, spare frame, clammy hand and tired manner, and it is for these patients with abnormal tendency to become fatigued, with nervous irritability and low blood pressure that the diagnosis of neurasthenia should be reserved.

Uncomplicated neurasthenia is quite rare among soldiers; a few cases were seen after the retreat from Mons as the result of sheer physical exhaustion. A larger number occurred as a result of exhausting illnesses, especially dysentery, among patients from Gallipoli and Mesopotamia. But on the whole the great majority of patients seen in a special neurological hospital in England were suffering from hysteria or psychasthenia, and it is with these that my paper is chiefly concerned.

Psychasthenia is difficult to define shortly; a full definition will be given later on. The psychasthenics are characterized by inability to adapt themselves to reality. They suffer from lack of power of concentration, defective memory, emotional crises and many other things.

Hysteria.

I shall first deal briefly with the manifestations of hysteria, a condition in which symptoms are produced by suggestion and are curable by psychotherapy. The last part of this definition needs emphasis, in fact the natural sequence of a diagnosis of hysteria should be cure. When I was taught medicine a common sequence of such a diagnosis was a passing on to the next bed!

Patients suffering from hysterical symptoms constitute about 60% of those seen in special neurological hospitals and they furnish the material for the dramatic cures which can be obtained, even after many months of illness, when suitable methods of treatment are used. Then, indeed, it is true that the blind see, the deaf hear, the dumb speak and those afflicted with paralysis regain the use of their limbs, and more often than not the cure is effected in a single sitting by persuasion and psycho-therapy. In fact one may say that any case of mutism, aphonia, deafness, spasm of the eyelids and blindness, paralysis or tremor following shell shock and any case of vomiting persisting for more than four weeks after gassing, or other transient cause of gastric irritation, are always functional and always curable. There should then be no single discharged soldier suffering from any one of these conditions.

[1] Read at a Meeting of the South Australian Branch of the British Medical Association on April 24, 1919.

Hysterical paralysis may be localized or widespread, affecting only a small group of muscles or one or more limbs. It may be spastic and associated with contracture, purely spastic or completely flaccid.

A comparatively trivial wound of the head or arm and less frequently of the leg may lead to complete paralysis of part of the limb, often associated with rigid contracture of certain muscles.

Babinski and Froment believe that many of these cases of contracture belong to a special class which they call "reflex nervous disorders." Their views are set forth in detail in their book which has recently been translated into English. Their conclusion is that such cases are not amenable to the ordinary methods of treatment by psycho-therapy and persuasion and a rapid cure is impossible. The investigations of my late Commanding Officer, Colonel A. F. Hurst, and other authorities make it extremely unlikely that any such condition as reflex contracture exists in these cases. At any rate, out of the many hundreds of patients with paralysis and contracture which passed through our hands at Seale Hayne Hospital, there was not one which failed to respond to the ordinary methods of rapid cure. It is most unfortunate that Babinski's treatment has been widely accepted and the result is that many of these cases are discharged from the Army as incurable.

It is never too late to cure. A man had a finger amputated in 1912. His hand at once became firmly clenched. He was admitted into the Army in April, 1917, without his disability being detected. Eleven months later he was sent to Seale Hayne Hospital. He was treated by persuasion and manipulation at once and in an hour the fingers were relaxed and he saw the palm of his hand for the first time in six years. At the end of three weeks he could use his hand for all ordinary purposes.

A gunner was wounded in the left hand in September, 1917. The hand became stiff and in spite of treatment by daily massage for many months no improvement occurred. He was admitted to Seale Hayne Hospital twelve months after the injury with a hand rigidly fixed in the *main d'accoucheur* position. He was cured in five minutes by pure persuasion.

Another patient was wounded in the elbow in September, 1915. Three of his fingers became clenched and remained in that condition for three years. It was then decided to invalid him from the Army. At the last moment, however, he was sent to Seale Hayne Hospital, the functional nature of the condition having at last been recognized. After half an hour's treatment it was possible to open his hand and it was found that his finger nails had dug holes in his palm, for they had not been cut for nearly three years. In the course of the next few weeks he completely recovered the use of his hand.

It is not only wounds which give rise to functional paralysis and contractures of the arm and leg. A man slipped in a trench and twisted his ankle. The leg was put in a splint and when the splint was removed a week later the foot was strongly contracted in the position of *talipes equino-varus*. It remained thus for 15 months until cured in half an hour by persuasion. A similar case followed a severe bruise of the foot caused by a gun falling on it. Marked talipes persisted for twelve months and the patient told me that he had been seen by 70 doctors before he came to Seale Hayne Hospital. I was able to cure him in a single sitting of half an hour's duration, by pure persuasion.

Such cases could be quoted indefinitely, but they may be seen any day in Colonel Strangman's orthopædic and neurological departments. To sum up, one may say that paralysis or contracture of a limb, whether due to a wound, sprain, fracture or other injury should be regarded as functional and therefore as curable by psycho-therapy, unless there is definite evidence of injury to nerves, tendons or other structures of sufficient degree to account completely for the exact form and degree of disability which is present. The seat of the disorder is not in the arm or the leg, but in the patient's mind.

When a man is blown up by the explosion of a shell, he not infrequently becomes paralysed. Paraplegia is the commonest, hemiplegia is less common and monoplegia is the least frequent type of paralysis following shell concussion. In most of these cases the signs of organic disease of the brain or spinal cord will be absent. Such cases are clearly functional and it is generally recognized that they can be rapidly cured by persuasion and re-education, even if the paralysis be of many months' duration. But it is by no means so generally recognized that many patients in whom there is an extensor plantar reflex and other signs of organic nerve injury, may experience an almost perfect functional recovery if vigorous treatment by persuasion and re-education be given.

A soldier was blown up; his left arm and leg became completely paralysed. He had not moved them and had been kept in bed for six months. As all the signs of an organic upper neurone lesion including Babinski's sign were present on the left side, it was thought that nothing could be done for him. He was then transferred to Seale Hayne Hospital, where he was vigorously treated by persuasion and suggestion, with the result that he was walking and moving his arm the day after admission. Three weeks later a distinguished neurologist visited the hospital and watched the patient playing billiards in the recreation room. He was asked which side he thought had been paralysed, but was unable to detect any difference, so complete was the functional recovery. On examining him a few minutes later, however, all the signs of organic injury were found to be still present on the left side.

Another patient was admitted for hemiplegia of 18 months' duration. There was a rigid contracture and paralysis of the left arm and leg with considerable wasting. Babinski's sign was present on the left side. At the end of three weeks' treatment this patient was able to walk a mile and to use his left arm almost normally.

A patient of mine was admitted with very marked ataxia and "Rombergism." So severe was the incoordination that the patient was quite unable to walk without assistance and had in fact spent the last six months in a bath chair. Further investigation showed absence of the knee jerks, a very slight degree of lordosis, *pes cavus*, nystagmus and intention tremor. His affection was, in fact, Friedreich's

ataxia, but nevertheless his disability was treated in the ordinary way by vigorous persuasion and re-education exactly as if it were a purely functional case. The result was remarkable, for in two days he was walking almost normally and the unsteadiness could only be detected when he changed his direction suddenly. He was shown a few weeks later in London at the Royal Society of Medicine with a number of other patients illustrating a lecture by Colonel A. F. Hurst on the "Functional Element in Organic Disease."

I must now pass rapidly over the remaining common symptoms of hysteria, merely mentioning in passing the so-called and time-honoured "hysterical stigmata"—localized anæsthesias, anæsthesia of the fauces, contraction of the visual field, and the rest—which have now been shown to be invariably due to medical suggestion.

Mutism is common and often of long duration. A man who became dumb as the result of shell shock, was discharged from the Army nine months later in the same condition. Uncured for all that time in the Army, he naturally assumed that his condition was incurable. He was given a pension, but no advice, and for 15 months he never saw a doctor. A friend persuaded him with some difficulty to come to our hospital, where he was taught to talk normally in five minutes.

A batch of 12 patients suffering from aphonia following gassing were sent to Seale Hayne. They had all been under treatment for from four to six months by a laryngologist. They were all taught to speak normally on the morning of their arrival.

Stammerers, provided they did not stammer in civil life, can usually be cured completely in a single sitting, although that sitting may have to be prolonged for some hours.

Deafness following shell shock is usually functional. Many of our patients were cured instantaneously by suggestion, others more slowly by suggestion plus re-education.

Blindness is a not uncommon hysterical symptom and is often associated with spasm of the *orbicularis* muscle. But I have seen many cases where there was blindness without spasm and have cured the patients rapidly by persuasion and re-education. A man was brought to Seale Hayne Hospital, totally blind and deaf as a result of shell concussion four years previously. A week's treatment was sufficient to restore his sight to normal. His hearing recovered after the second treatment. This man had been in receipt of a full pension for four years, and had been seen by numerous eye specialists.

Tachycardia is common and often associated with signs of hyperthyroidism and hyperadrenalism. Such patients may show all the signs of Graves's disease and the presence of hypersecretion of the suprarenals shown by the high blood pressure and very exaggerated pilo-motor reflex.

The explanation of the pathogenesis of such cases is probably this: the natural consequence of the violent emotions of fear or anger are the actions of flight or fight. To prepare the body for such violent action, there is overaction of the suprarenal and thyroid glands, causing acceleration of the heart, rise of blood pressure, dilatation of the bronchi and deeper respiration. But to the soldier in the trenches the natural consequences of violent emotion are often denied, with the result that he is rendered incapable by an accumulation of these powerful secretions in his circulation. The emotion and consequent hypersecretion is often perpetuated, after the soldier has reached a base hospital, by nightmares and day-dreams, and by the time he reaches England he often presents, as I have said, a complete picture of exophthalmic goître. Rest, isolation and psychotherapy, together with belladonna and bromides, generally cure these patients in the course of a few weeks.

Vomiting is an important and seldom recognized hysterical symptom. I had a series of 20 cases of a duration of four to twelve months. The onset could be traced variously to gassing, tuberculosis, trench fever, dysentery, appendicitis and in some cases to pure emotion, such as that caused by a horrible sight or a disgusting smell. All these men had been treated for "gastritis" with drugs, dieting and in many cases by rectal feeding. Some had lost 20 to 25 kilograms (3 or 4 stone) in weight and were extremely ill. All were rapidly cured, many in a single sitting, others in a few days and a few took as long as a week or ten days.

I have seen many cases of hysterical tachypnœa with respirations of 40 to 60 per minute. Such cases are easy to cure. Two cases of hysterical hiccough of 6 months' and 12 months' duration respectively were cured in a few days. One patient with functional incontinence of urine who had worn a rubber urinal for 12 months, was cured in three days.

Hysterical gaits are extremely common and may be seen in the wards of almost any surgical hospital. Such patients will tell you that they limp because they have pain in their wounded leg. The truth is that they have pain because they limp, and when the faulty gait is corrected by persuasion and re-education, their pain disappears.

There are many other hysterical symptoms which are of less common occurrence, but it is not necessary to describe them here.

The treatment of all these symptoms can be summed up in the words persuasion and psychotherapy. It would take too long to discuss the treatment of all these symptoms in detail; the important thing is that they should be recognized as functional and consequently as rapidly curable. Cases of long standing are the results of wrong diagnosis and wrong treatment and most special neurological hospitals in England are museums of medical failures. But it is never too late to cure, although rapid cure in long standing cases may be difficult or impossible. The most important point in treatment by persuasion is that the medical officer should be able to devote several hours, if necessary, to the treatment of any new case. The first interview is the most important and if a definite improvement is not obtained at the first sitting, rapid cure is usually impossible. In resistant cases it was often found that a change of medical officer was sufficient to bring about a cure. In fact, as Roussy says, "a patient may go from one doctor to another until at last he meets his master." I may say, however, that such transfers were not common at Seale Hayne Hospital.

With regard to other methods of treatment, I may just mention electricity, massage and hypnotism merely to say that we used electricity and massage very little indeed and hypnotism we have given up entirely. I myself have cured paralysis, blindness, stammering and other hysterical symptoms by means of hypnotism, but we found that we could get the same results by pure persuasion and that such results were permanent, whereas symptoms cured by hypnotism had a tendency to recur.

Psychasthenia.

Psychasthenia is a functional nervous disorder characterized by inability to coordinate mental processes, especially those set up in response to the stimuli of ordinary life, which results in inability to regulate the ideas and actions in a logical manner, together with difficulty in concentration and in more severe cases in obsessions and emotional crises.

The above definition is taken from a book and does not, perhaps, leave you with a very clear mental picture of a psychasthenic; but you all know the type of patient I refer to—the man whose whole character seems to have been changed as the result of emotional strain or shell shock; he is miserable and depressed; he can take no pleasure in anything; he sleeps badly and is tormented by nightmares. His head aches continually. He tells you that he has lost interest in things, he cannot concentrate his mind, even on a newspaper, for five minutes at a time. He is absent minded and his memory is defective. He has no confidence in himself and he shrinks from association with his fellows. Such a patient is often highly emotional and may break down repeatedly while telling his story.

Life is intensely difficult for the psychasthenic; he is met at every turn by problems which he finds great difficult in solving. Such problems may be of the most trival nature, such as which pair of boots or socks he will wear, which of two or three letters he should answer first and so on with all the minor problems of daily life.

These patients are acutely aware of the change which has taken place in them. They know that they are irritable, that they are unable to interest themselves or give sustained attention to any subject. Instead of being jovial, social and good tempered, they are morose, solitary and ill natured and find great difficulty in controlling themselves. All this is very real to them and leads to a condition of anxiety which is increased by their not being able to understand their condition; they worry because they fear how far it may go and as a result they live in a state of expectancy which causes them to exaggerate the trifles of every day life. Small incidents, slight psychic or physical disturbances, which would have passed unheeded before their illness, now assume a quite abnormal interest and importance for them. It is these psychasthenics who form such a large proportion of the cases of "nervous breakdown" seen in civil practice. Whether the breakdown occurs in a civilian or a soldier the cause of the condition is emotional strain. "Without emotion," say Déjerine, "there are no neuroses." The war has produced no new neuroses, no hysterical or psychasthenic symptoms that were unknown before the war; it has merely multiplied them.

The point I would like to emphasize in speaking of psychasthenia, as in the case of hysteria, is that these patients can be cured. In fact these are the patients whom I consider far more interesting and satisfactory to treat than those suffering from simple hysteria. Perhaps I should say here that symptoms of the three great classes of neuroses, hysteria, psychasthenia and neurasthenia are often associated in the same patient and treatment must be adjusted accordingly. To be effective, treatment must be directed towards the underlying emotional cause and not merely towards the cure of the symptom or symptoms. A few days ago I was shown a prescription containing twelve active constituents—apparently one drug for each symptom—and this medicine had been diligently taken by a psychasthenic patient for a period of ten months. I need hardly say that the last state of the patient was worse than the first.

Déjerine says emphatically: "In the treatment of the psycho-neuroses there is no place for drugs; this form of therapy has lived its day and we feel that it is time to condemn it without circumlocution or restriction."

Drugs, acting largely as vehicles for suggestion, may of course relieve symptoms. The patient may complain less of his headache, of the pain in his back or legs or of his asthenia. He will have powders that will cure headache, a medicine for his digestion, another to make him sleep and a "tonic for his nerves." Things may go on better in fact, until some day the patient will perceive that, although he is a little better in each symptom, he nevertheless, taking all in all, feels just as ill as he did before.

It would be hard to say how much time may be lost in this way, for the treatment of neuroses by drugs is both inefficacious and harmful; it gives the patient's mind an orientation which is directly opposed to that which we wish to produce, makes him in fact more introspective instead of less so. The only suitable treatment for the psycho-neuroses is psycho-therapy.

May I say here quite definitely that treatment by psycho-therapy is not treatment by psycho-analysis after the manner of Freud, Jung, Adler, Ernest Jones and the rest? One would have thought that experiences of war neuroses alone would have made it clear that the universal sex theory of causation of the neuroses was no longer tenable. However much we may disapprove or be disgusted with the methods and theories of the psycho-analytical school, we must allow that in the treatment of the neuroses we owe much to the researches of Freud.

The psychasthenic needs, then, psycho-therapy—psycho-therapy in its widest and sanest sense—mental treatment after the manner of Déjerine, Janet and Dubois. He needs help very badly and when it is given in the right way he responds to it well.

In most cases some form of mental analysis will be necessary in order to discover in what direction the patient has gone astray and in what manner we may subsequently rearrange his mental processes and turn his thoughts into more healthy channels. The process of thought in our minds is determined in two

ways: (1) by reason, *i.e.*, by means of logical argument after the manner of Euclid, and (2) by emotion or, in other words, by the directing force of "complexes." It is the second factor, emotion, which is the principal factor in directing the stream of consciousness.

A complex may be defined as a system of ideas strongly coloured by an emotional tone which tends to influence the train of thought. If we examine our own minds we find that the train of thought is largely dependent upon such systems of ideas.

The best example of a complex is love. The mental processes of a young man in love are almost all coloured by this great fact, and whenever he thinks of anything at all the complex tends to push itself forward so that his thoughts are influenced by it and he sees everything through spectacles tinted by his passion.

As another illustration of a complex we might take the attitude of mind of the keen amateur photographer who, when travelling, tends to look to all scenery as through a camera lens; or, again, the enthusiastic golfer who may think of it all as a series of bunkers, roughs and fairways.

We must realize, however, that the driving forces of our mental processes are primarily our instincts and, in fact, complexes may be dissected and shown to depend on one or more instincts. Thus the complex of love may be shown to depend largely upon the instincts of sex, parenthood, self assertion, self abasement and possession.

When we say, therefore, that our thoughts are influenced by complexes, we really mean that instincts are directing our stream of consciousness. Now this stream of consciousness may be subdivided into three parts: (1) the active consciousness, comprising our normal waking thoughts, (2) the liminal consciousness in which are thoughts and ideas which are readily recalled by an effort of memory, and (3) the subliminal consciousness—or the unconscious as it is sometimes inaptly called—in which are those thoughts which the subject tends to keep in the background and which can only be brought into the active consciousness with difficulty or by roundabout means. These subliminal thoughts are often of a painful nature and are kept there by an effort of repression to spare their owner from mental distress.

It is this region of the subliminal consciousness that the complexes which we may call pathological, are stored. Sometimes they are repressed successfully, but in many psychasthenic patients these thoughts will not be denied and are continually forcing themselves into the active consciousness whenever the attention is relaxed during the day time or in the form of nightmares when the higher inhibitory centres are in abeyance during sleep. Associations of all kinds are continually bringing them into the patient's active consciousness and it is this process which is the cause of most cases of so-called "nervous breakdown" which occur in every doctor's practice.

It is rare, however, for these unbidden ideas to appear undisguised as the effort of repression is never quite inactive. It is for this reason that the patient is usually unaware of the real cause of his breakdown. They are in fact unrecognized by the subject on account of their distorted form and this is especially the case in dreams.

These complexes, which are buried in the subliminal consciousness, may tend to direct the stream of consciousness in different ways, and when these forces are powerful and opposite, the result is a mental conflict which may or may not be realized by the patient. The result, however, is an anxiety state, a condition of indecision, a lack of will power, a feeling of mental tension, all of which are typical of the psychasthenic.

A soldier in the trenches may, during a bombardment, be directed towards flight by his instinct of self preservation, but held to duty by what Trotter has called the "herd instinct."

A civilian may be directed one way by his love for a married women, but held back by his sense of moral right. Such conflicts may, as I have said, be quite unconscious and all the patient complains of may be headaches, insomnia, lack of power of concentration and an inability to do his work efficiently.

In treating such patients one must be able to discover these mental conflicts, both those of which the subject is aware and those which are unrealized by him. The patient must then be helped to solve his conflicts and if this is impossible, he must be taught how to face them and to adjust his life so that they no longer impair his efficiency. In practice, however, most of the problems of the psychasthenic are soluble and a little common sense talk will show the patient the way out and remove an enormous burden from his mind.

As aids to the discovery of subconscious mental conflicts I may mention the analysis of dreams and the word association test, but the discussion of these methods would, I fear, take more time than I have at my disposal. Both methods may, however, be dispensed with in the majority of cases; in fact, Déjerine would say that they are both unnecessary and perhaps I may here quote from his book:—

> You must learn the whole history of your patient's life, all the pleasure that he has been able to get out of it and all the rancour which may have accumulated in it. You must know the smallest detail of his family life and his conjugal life. Through his tastes, his actions and his reactions, you must manage to form a complete and coherent picture of his mental and moral condition. You must find out whether he is inclined to be sentimental or emotional or, on the other hand, cold and indifferent. Has he or has he not a strong feeling of self esteem or pride? Has he religious or philosophic convictions? If so, what are they? It is of the utmost importance to know everything, in order to understand everything and when you know every trick of your patient's mind, you have already begun to cure him. For this part of the examination there is no need for any profound psychology, for whether it is the case of a prince of science or a leader of finance, the heir to a throne or the most modest of his subjects, those feelings which alone are able to stir men, are extremely simple and quite alike.
>
> It would be a great error to imagine that in order to obtain a complete confession from a patient, it is absolutely indispensable to be mature in years or to have great authority. The youngest physician, practising in any little place in the country, may arrive, perhaps in a little longer time, at exactly the same result, with the condition, however, which in this case is absolutely indispensable, that loving his profession and looking upon it as something more than a trade, he knows how to make himself trusted by his patients.

It is the physician's duty to interpret and explain, for in all functional manifestations the "Know thyself" of the Socratic doctrine is exactly the means by which the patient should arrive at a definite cure. In fact the key to success in psycho-therapy is found in a clear and primitive understanding of mental and physical illness. To quote Déjerine again: "We say most emphatically to those who do not know how or have not the patience to work in this manner, that they have no right to judge the value of psycho-therapy by persuasion. If in their hands it shows but little good result, it is because they have not given time enough to cure their patients."

BLOOD CULTURE IN SUMMER DIARRHŒA.

By **Reginald Webster, M.D. (Melb.),**
Clinical Pathologist, Children's Hospital, Melbourne.

The work on which the present communication is based consists of a study of the possibilities of blood culture, as applied to summer diarrhœa. It was originally intended to examine a much larger series of cases before publishing a review of the results obtained, but the work was interrupted by the advent of epidemic influenza, with the consequent numerous calls on a much depleted medical and nursing staff. This contribution, therefore, does not aim at being anything more than a preliminary note, and it is hoped that a more comprehensive investigation will be practicable next summer.

By the introduction of sinus puncture[1] a great deal of the difficulty that formerly attended the aseptic withdrawal of blood from small infants has been overcome. To obtain blood from a baby aseptically and in sufficient quantity for hæmo-culture was often extremely tedious and, even after exposure of the vein by incision under local anæsthesia, I have sometimes failed to get the requisite amount or encountered coccal contamination in the subsequent culture. For the present series, therefore, I chose the sagittal sinus in all infants in whom the anterior fontanelle was sufficiently open to admit of the insertion of a needle into this channel. With older children, my experience was that the anterior or external jugular vein was the most readily entered by direct veni-puncture, as these veins stood out prominently when the child cried.

Five cubic centimetres of blood, obtained in the manner indicated, and inoculated into 50 c.cm. of a bouillon, the basis of which was liver extract, constituted the primary culture.

Ox liver was utilized in making the meat infusion in order to obtain the advantage of the presence of bile salts. The medium was then prepared as ordinary broth, and rendered + 10 to phenolphthalein.

In those instances in which growth appeared, the primary broth cultures were transferred to MacConkey plates; likely colonies were then selected for sowing in glucose- and mannite-litmus-peptone water, together with other available carbohydrates and litmus-milk.

Hæmo-culture, as above outlined, was carried out in twenty-seven instances. Some discrimination was exercised in the choice of cases for examination, those infants who were mildly ill and in whom the frequency of motions was due to some evidently simple cause, being passed over in favour of those who were more severely affected, and in whom an infective origin for the disorder seemed more probable.

If the appearance of blood in the motions be accepted as a somewhat arbitrary criterion of the severity of a case, eleven babies exhibiting blood in the stools may be considered apart from the remainder, in whose motions no blood was observed.

Of the eleven thus distinguished, five yielded a positive result and six were sterile. The following notes will serve to illustrate the type of case to which I refer:—

Case *I.*—Joyce P., *æt.*, 10 months. Diarrhœa for two days; vomiting. Motions: green, slimy, streaked with blood.

Diet before attack: cow's milk and water, equal parts.

Cultivation of *B. fæcalis alkaligenes.*—Source of blood: anterior jugular vein. Turbidity in primary broth culture after 24 hours. Hanging-drop preparation. Motile bacillus: Gram-negative.

MacConkey plate exhibited a not very abundant growth of a non-fermenter of lactose. After five days' incubation there was no acid or gas production in glucose or mannite peptone-water, nor in Durham's tubes containing lactose, saccharose, sorbite and dulcite. Litmus milk remained alkaline up to fifteen days.

Case *II.*—Harold H., *æt.*, 2½ months. Diarrhœa for 48 hours, with much tenesmus and bloody motions.

Mother declared he was entirely breast-fed.

Very pale, sick-looking and dehydrated.

Cultivation of *B. fæcalis alkaligenes.*—Source of blood: anterior jugular vein. Procedure the same as in Case I.; the organism appearing on MacConkey plates gave reactions identical with those obtained for No. I. in the same series of tests.

Case *III.*—Roy D., *æt.*, 11 months. Diarrhœa for two days, with much blood and slime; vomiting; feverish (38° C.) and sick-looking; very dehydrated.

Cultivation of *B. fæcalis alkaligenes.*—Source of blood: fontanelle.

Again a motile bacillus appeared after 24 hours' incubation of the primary cultures. Transfer to MacConkey plates resulted in a copious growth of a non-fermenter of lactose in pure culture. The sugar reactions coincided with those given for the preceding two cases, and there was pronounced alkalinity in litmus-milk. This child died five days after admission, whereas the two first mentioned ultimately did well.

Case *IV.*—S. P., *æt.*, 5 months. Diarrhœa for five days; no vomiting; stools, 12-24, green, slimy, with much blood.

Diet: breast-milk and biscuit alternately, until three weeks before attack. Was then fed on Glaxo. Temperature on admission, 38.3° C.

Cultivation of *B. dysenteriæ* (Flexner).—Source of blood: fontanelle.

Twenty-four hours' incubation of primary culture produced turbidity in the supernatant broth. Hanging-drop preparation disclosed a non-motile bacillus. MacConkey plates made from the primary flask yielded abundant colonies, all of which were of uniform appearance and non-fermenters of lactose. Acid, without gas, appeared in the glucose and mannite peptone-water tubes (24 hours), and lactose, saccharose, dulcite, sorbite remained unaffected—except for the turbidity due to growth of the organism—after five days' incubation. Temporary acidity appeared in litmus-milk after 24 hours, but on further incubation alkalinity supervened and persisted.

This child subsequently did well after a period of fever of three weeks' duration and left the hospital at the end of the fifth week.

Case *V.*—Joseph C., *æt.*, 3 months. Diarrhœa for five days; no vomiting; stools very frequent, occurring at 15 minute intervals. The motion consisted chiefly of slime and blood.

Breast-fed until two days before attack; was then given biscuit and milk; subsequently refused breast and was fed on Glaxo.

Temperature 39.5° C.

Admitted to hospital, but died a few hours after admission.

Cultivation of *B. dysenteriæ* (Shiga).—Source of blood: right auricle (post mortem).

Examination of hanging-drop preparation (24 hours) disclosed the presence of a non-motile bacillus. Transferred to MacConkey's plates, the colonies were abundant and all of the same type, *i.e.*, non-fermenters of lactose. The sugar reactions were those of a non-mannite-fermenting strain of *B. dysenteriæ* (Shiga). Acid, without gas, appeared in the glucose tube; litmus-milk remained alkaline, and no change occurred in lactose, saccharose, dulcite, sorbite and mannite, upon incubation for five days.

Condition of bowel post-mortem.—The changes were most obvious in the colon. Here was evident a hæmorrhagic inflammation, with some superficial sloughing of the lymphoid follicles; all the latter were very injected, and there were patches of submucous extravasation of blood.

Similar changes, though somewhat less intense, were present in the last few feet of the ileum. The glands in the enteric mesentery, together with those along the colon, were very injected and swollen.

Cultivation of *B. dysenteriæ* (Shiga), from a hyperæmic mesenteric gland.

The gland was removed with aseptic precautions, divided and placed in liver extract bouillon; the subsequent routine was the same as that indicated for the blood-cultures. Fermenting and non-fermenting colonies developed on MacConkey plates.

The former gave the energetic acid and gas production of *B. coli* in the various sugars, and induced clotting in litmus-milk. The latter (non-fermenting colonies) exhibited reactions identical with those of the strain of dysentery bacillus isolated from the heart blood.

Thus, of eleven cases in which blood was noted in the stools, five yielded a positive result in blood culture and six were sterile. Of sixteen milder cases all were sterile, or gave a few colonies of *S. albus* only.

The several strains isolated from the first three cases tabulated above conform morphologically, culturally and in their biochemical reactions to *B. fæcalis alkaligenes*.

In each instance the organism recovered possessed the following attributes of *B. fæcalis*: motility, negative reaction to Gram staining, a thick, moist growth on agar-agar, inability to ferment glucose, lactose, saccharose, dulcite, sorbite and mannite and the property of inducing alkali formation in litmus-milk. Its presence in the circulating blood is of particular interest in view of the fact that *B. fæcalis alkaligenes* is not commonly credited with pathogenic power.

Its frequent presence in human dejecta has been recognized since Petruschky's first description of the organism. However, records in which *B. fæcalis* is shown in a pathogenic rôle are not wanting, as witness the series of cases investigated by Shearman.[2] This observer, in the course of blood culture work among cases of suspected enteric infections, encountered the *B. fæcalis alkaligenes* in eleven cases, the patients from whose blood it was recovered all exhibiting a mild pyrexia and presenting a clinical aspect suggestive of a mild enteric fever.

Shearman adduces serological evidence of the existence of a true infection by this organism, the blood serum of the affected patients being shown to contain homologous and heterologous agglutinins for the strains of *B. fæcalis* isolated.

Ledingham[3] has collected four other authenticated cases of mild, typhoid-like illness, in which *B. fæcalis alkaligenes* were recorded in pure culture from the blood.

The examples above quoted from the literature on the subject are all of adult infections, with a clinical picture far removed from that of the infantile disorder here investigated. Nevertheless, they have a direct interest, as illustrating the possibility of *B. fæcalis* assuming invasive and pathogenic powers.

I am unable to contribute any serological results relative to these cases of apparent systemic infection with *B. fæcalis alkaligenes* and, in the absence of such data, it is difficult to exclude the possibility that the organism was present in the circulating blood merely as a secondary invader. The existence of a catarrhal condition of the intestinal mucosa, by establishing a *locus minoris resistentiæ*, may well facilitate penetration of this membrane, with consequent systemic infection, by an organism normally confined to the intestinal tract. However this may be, it is desirable to place the results on record and the subject would appear worthy of further enquiry.

Serological investigation of the two strains of dysenteric organisms was rendered possible by the kindness of Dr. W. J. Penfold, who placed at my disposal specific agglutinating sera for the Shiga and Flexner groups of *B. dysenteriæ*, together with standard emulsions of *B. dysenteriæ* (Shiga and Flexner).

The full titre of the Shiga serum was 1:500, that of the Flexner serum 1:6,000. The standard strains were agglutinated (macroscopic technique) up to the full titre of the serum in each instance, whereas the strains above described as recovered by blood culture, behaved in the followed manner:—

Mannite-fermenting strain — agglutinated by Flexner serum in dilutions of 1:1000 (++), 1:2000 (+), with end point below 1:3000. Full titre of serum 1:6000.

Non-mannite-fermenting strain—agglutinated by Shiga serum in dilution 1:100 (+), with end point below 1:200. Full titre of serum 1:500.

Neither strain was affected by normal serum in dilution 1:40.

Thus, the reactions of these strains to Shiga and Flexner agglutinating sera were considerably below those obtained by titrating the standard emulsions against their respective sera, but when considered with the cutural and biochemical characters adduced above, they provide evidence of the dysenteric nature of the organisms recovered from the blood.

At the outset, a high percentage of positive results was not anticipated. Diarrhœa in babies may mean anything from a simple indigestion, dependent primarily on faulty feeding, to a violent dysenteric infection which renders the child acutely and gravely ill within a few hours. Clinical diagnosis may readily appreciate the nature of cases at either end of the scale, but there remain the large number of intermediate types where the clinical distinction between the essentially infective and non infective origin is a matter of difficulty. It would appear that the presence of blood in the stools renders the infective nature of a given case more probable, for in the short series of cases here reviewed, I obtained a positive result by blood culture in five out of eleven instances in which blood appeared in the motions.

The existence of a bacillæmia in certain cases of summer diarrhœa would bring this disorder into line with other infective diseases in which an initial systemic infection is established. All are familiar with the bacteriæmia of early typhoid fever; the same phenomenon has been demonstrated for pneumonia; cerebro-spinal fever comes within this category, and the clinical and experimental evidence of a phase of systemic infection in poliomyelitis is so strong as to leave no room for doubt. One of the objects of this study was to establish a similar order of events in the infective type of infantile diarrhœa, and the results obtained appear sufficiently suggestive to warrant a resumption of the work when opportunity again arises.

References.

[1] Helmholtz, *American Journal of Children's Diseases, X.*, September, 1915, p. 194.
[2] Shearman, *British Medical Journal*, December 30, 1916.
[3] Ledingham, *British Medical Journal*, December 30, 1916.

Reports of Cases.

THREE CASES OF INTEREST IN RHINOLOGY.

By **H. Seaward Marsh, M.B., Ch.M. (Sydney),**
Honorary Surgeon, Ear, Nose and Throat Department, St. Vincent's Hospital; Honorary Assistant Surgeon, Ear, Nose and Throat Department, Sydney Hospital.

I.—Asthma Due to Chronic Antral Suppuration.

M.R., *æt.* 50 years, has had asthma off and on for years. The asthma has been much worse during the last three months. He was told by a practitioner in the country that he should get his nose attended to.

On examination I found that the patient was very thin and pale, with a pronounced asthmatic wheeze. There were polypi and a deviated septum on the right side of the nose and chronic antral suppuration. One polypus was seen on the left.

A sub-mucous resection was first done and the polypi were removed. After a fortnight a radical Caldwell-Luc operation was performed on the right antrum under local anæsthesia, as the heart was very feeble. I used apothesine (Parke, Davis & Company) as a sub-mucous injection in the canine fossa and packed the lower meatus with 10% cocaine solution and 1‰ adrenaline. After opening the antrum I packed it with gauze soaked in the same solution before curetting. The patient stated that he had no pain during the operation.

When he left for the country a fortnight later his asthma had quite disappeared.

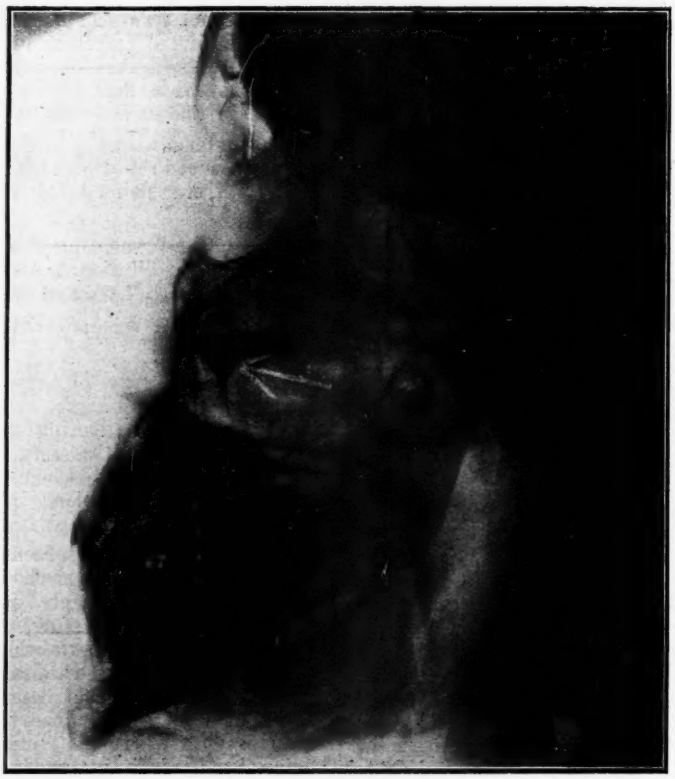
II.—Tooth in Antrum of Highmore.

Mrs. Q.V. complained of an abscess and discharge from the gum above the site of the left upper wisdom tooth. She stated that she had had attacks of left antrum of Highmore suppuration for some years. She had been treated for an attack on one occasion by a medical man. She saw a dentist for the gum abscess and was advised to consult a rhinologist.

On examination I found a well-marked chronic suppuration of the left antrum and the other condition, as complained of. The sinus from the gum abscess was very minute. There was no sign of a wisdom tooth. A dental skiagram of the jaw taken by Dr. J. G. Edwards revealed no tooth, but in the side view of the nasal sinuses there appeared to be a tooth in the left antrum far forward (see skiagram). Under ether anæsthesia a trephine opening was made in the canine fossa and a tooth was discovered adherent to the mucous membrane lining the outer wall of the antrum, immediately internal to the centre of the trephine opening.

The tooth was removed and the Caldwell-Luc operation for chronic antral suppuration completed.

This must be a very rare condition. I have not been able to find an account of a similar one in any book on rhinology. The patient stated that she had never had her left upper wisdom tooth removed. Evidently the unerupted molar had worked its way into the antrum and became fixed there.



III.—A Case of Vacuum Frontal Headache.

Miss O.H. has had frontal headaches for some years. She has seldom been entirely free from them. At times they have been almost unbearable. No treatment (including glasses for the eyes) had done her any good. She was referred to me by Dr. Gregory O'Neill for a possible nasal cause.

I found a high deviation of the septum to the right, pressing on the anterior part of the middle turbinate. I recommended a sub-mucous resection of the septum. Under cocaine anæsthesia this was performed. The result was most gratifying, as the patient has had no headache whatever since.

This was, in all probability, a case of vacuum frontal headache (see Sluder on headaches of nasal origin). Sluder states that any anatomical or pathological condition blocking the openings of the frontal sinus or anterior ethmoidal cells will cause absorption of air in the sinuses, congestion of their mucous membrane and the frontal headache. Pressure on

the anterior part of the middle turbinate by a deviated septum would have this effect, particularly in congestive states of the cavernous tissue of the turbinate. At those times the tissues would be more swollen on the outer side of the organ, on account of the deviated septum, would close the frontal pouch under the anterior end of the middle turbinate and so close the opening of the frontal sinus.

Sluder states that mere contact of the septum with parts of the outer wall of the nose does not cause headache. I am inclined to agree with him, as I have seen patients with severe deflection or spurs, where the septum was in close contact with the inferior turbinate, quite free from headaches.

Reviews.

FORMULÆ AND PROCESSES.

We have received from Messrs. Angus & Robertson, Limited, a copy of the 1919 edition of Henley's Twentieth Century Book of Recipes, Formulas and Processes.[1] The copyright was taken out first in 1907 and has been renewed four times since. A mere glance through the pages of this most entertaining and valuable compilation will supply the reason for this. The contents of the book include articles describing processes used in manufacture, in the handicrafts and in the workshop. The formulæ and recipes have been carefully selected from the most reliable trade and scientific publications and in many cases alternative formulæ are given in order that the choice may be made to suit the particular application. The Editor calls the attention of the reader to his intention to present recipes which may serve as the basis for an experiment. Modifications can be made to suit the purpose of the experimenter. We regard the book as the best value for 15 shillings we have met with. It contains information concerning the making of bricks and the preparation of tooth pastes and powders, the composition of various cosmetics and the proper methods of gilding and silver plating, the many processes of enameling and all you want to know about photography, the best way to stain, to fill and to preserve wood and the tricks used for the inking of typewritter ribbons. In short the subjects dealt with cover a very wide field, and the information is given in concise terms. The book may be regarded as a supplementary encyclopædia for the use of everyone who wants to be able to do things himself.

Notes on Books.

We have received a pamphlet written by Dr. J. Bean, the General Secretary of the Theosophical Society of Australasia, and addressed to the "Diggers" of the Australian Imperial Force and to the nurses who have served in the war.[2] The subject is the old, old sex problem, and the solution found by the author is the old, old one, with the old, old errors. It would be out of place to discuss in these columns Dr. Bean's, or any other man's, religious views. Suffice it to say that these views are excellently propounded and must command the respect of all honourable readers. The sad part about this aspect of the sex question, the appeal to finer feelings, to the sense of ethics or to the fear of God, is that the doctrine has been taught for countless centuries and the world holds as much immorality and vice to-day as it has held in any other age. Dr. Bean teaches that the fundamental evil that should be combated is not incontinence, not venereal disease, but selfishness and apathy. Has not the same state of affairs always existed? It seems to us as if convention moves in slow waves. A generation or two is known in history as an extravagant, an immoral one and it is notorious that in these recurring ages all the refinements of sexuality pervade a large proportion of the community. Then follows a couple of generations of relative reaction, perhaps even of ostensible prudery. But human beings do not really differ; it is merely the fashion to conceal more at one time and less at another. Dr. Bean has other methods of combating the sex problem, and he goes far in his advice. He would have men—his old comrades, the Diggers—abstain from flesh food, from condiments and strong tasting dishes, as well as from alcohol. Where did the curious belief arise that condiments act as sexual irritants? It is a common belief and even finds adherents among medical practitioners. Of course, it is possible to diminish sexual appetite and sexual activity by starving the body, but surely the hygienist who advocates this, gives very dangerous advice. Again, Dr. Bean's physiology is hazardous, to say the least of it, when he speaks of irritation from acidity of the blood and tissues. He cannot be referring to carbon dioxide and the other acids of normal metabolism, for all physiological activity must cease if these products are to be suppressed. Similarly, it is of small use of tell young men that they must guard against a high blood pressure, since this is associated with increased sexual desire. We have no control over blood pressure, save that by starvation we may succeed in reducing it to a dangerous level. As the scientific basis of his teachings is insecure and as the religious appeal has failed to reform the human race since the beginning of things, we fear that Dr. Bean's endeavour to create a better world will not effect a noticeable change in this country. It is an admirable attempt.

[1] Henley's Twentieth Century Book of Recipes, Formulas and Processes, containing 10,000 selected household and workshop formulas, recipes and money-saving methods for the practical use of manufacturers, mechanics, farmers, housekeepers and home workers, including hundreds of so-called trade secrets for every business; 1919 edition, revised and enlarged, edited by Gardner D. Hiscox, M.E.; 1919. New York: The Norman W. Henley Publishing Company. Sydney: Angus & Robertson, Ltd.; Royal 8vo., pp. 807. Price, 15s.

[2] How to Wage the Sex Campaign, by Major J. Bean, A.A.M.C.; 1919. Sydney: Printed for the Theosophical Society, Australasia, by Batson & Co., Ltd.; 8vo., pp. 46.

STATE CHILDREN IN SOUTH AUSTRALIA.

The State Children's Council of South Australia works under the *State Children Act, 1895*. The Council comprises 12 members and a secretary; four of the members are married women, two are single women and one of the six male members is a medical practitioner.

During the 12 months from July 1, 1917, to June 30, 1918, 257 children came under the control of the Board, in addition to 1,844 who had previously been committed. In the same period 263 children passed out of the control of the Board either by death or by discharge, so that at the end of the 12 months there were 1,838 chargelings. The Council neglects to give information concerning the discharged children. It appears that eight children entirely under the charge of the Council died during the year and that six children who had been placed with licensed foster mothers, and 30 who had been placed in unlicensed homes, died. It thus appears that the number of deaths in the year was 44, which represents approximately 2.2% of the total number of children concerned. The distribution of the 1,838 children on June 30, 1918, was as follows: placed out within South Australia 1,540; placed with guardians outside the State 11; in industrial schools 82; in reformatories 78; in probationary schools 51; in institutions for mental defectives 23, in other institutions 19 and absconders at large 34.

There were 72 children in the industrial school on the first day of the year, while 152 were admitted during the year, 459 were re-admitted and 20 were transferred from probationary schools, etc., making 631 additional inmates or 703 in all. Of these children, 621 were dealt with as follows: 46 boys and 124 girls were sent out to service; 133 boys and 124 girls were "dismissed to subsidy"; 19 children were discharged on probation, 41 were sent to hospital, nine to reformatories, one to a probationary school, eight to a convalescent home, 20 to other institutions, 25 were released to be committed, 24 were released from temporary admission, four were released on petition, one was released to the Department, 11 attained their discharge on the expiration of their term, four were discharged on holiday, 26 absconded and one died. No information is given concerning the manner in which the institution is governed, the type of the children admitted, the means adopted for dealing with any shortcomings in the children and the general progress in their physical and mental training.

There are three reformatories, two for boys and one for girls. The institution for girls at Redruth received during the year three uncontrollable girls and one who had been convicted of larceny. The information given is of the

scantiest character. It appears, however, that 26 of the girls were discharged from the reformatory to enter domestic service, two were sent to hospitals, three to lying-in homes, one was adopted and one was released on petition. It is stated that 43 girls out of a total number of 75 discharged during five years were at work and were doing well.

Of the two reformatories for boys, the one at Magill receives Protestant boys. During the course of the year 19 youngsters were admitted; 13 of them had committed larceny, one had been found guilty of house breaking, one had been committed for unlawfully damaging property and one for indecent assault. We venture to question the advisability of congregating in the same institution a wayward child, whose worst discovered fault was destructiveness, and a vicious child whose immoral tendencies were probably irrepressible. The total number of children dealt with in this reformatory was 66. Of these children, 18 absconded, while 11 were placed in service, two were dismissed to subsidy, three were dismissed on probation, one was sent to a probationary school and one was released from temporary admission. Two others were discharged to enter an Australian Imperial Force camp.

The second reformatory at Brooklyn Park is for Roman Catholic boys. Of the seven children admitted, four had committed larceny and three were detained in default of fine. There were 16 dismissals, one to service, three to subsidy, four on probation, one to a hospital, one was released on petition, six on the expiration of term. Six children absconded during the year. It is stated that this institution is a model of neatness and order. It would, however, be greatly to the interest of the community, if a full investigation into the mental condition of the inmates of these reformatories were carried out by competent psychiatrists and if some attempt were made to segregate the children according to their mental and emotional characteristics.

It appears that the probationary schools receive refractory children, although the data published in the report are insufficient to enable us to determine whether some of them have not vicious propensities. The total number of children in the probationary schools was 105. Of these, 13 were sent to service, three were discharged on probation, seven were allowed their freedom at the expiration of the term of commitment, six were sent to industrial schools, two to reformatories and two to hospitals. The absconders numbered 20, of whom 19 were boys. As there were 75 individuals in the school during the year, this means that over 25% took "French leave." We cannot refrain from questioning whether those in authority recognize the significance of the problem of the refractory child and the mentally defective child, in view of the statement contained in the brief record of the probationary school at Mount Barker:—

> The Superintendent of this institution, Staff-Captain Glitheroe, has by his energy and resourcefulness very much improved conditions generally, and under his able guidance the boys under his care will only have themselves to blame, if they do not do well in the future.

On the first day of the twelve months there were 285 children on probation. A further 125 children were placed on probation during the year. No less than 63 were discharged during the year, while two died and five absconded. Some of the reasons given for discharge are somewhat startling. In eight cases the home was unsuitable, in four cases the reason was misconduct, in two cases "unable to keep" and in one case "mutual dissatisfaction." During the year 17 children, representing 4.1%, misbehaved seriously.

The probation officers of the Department have the duty of visiting children on probation and other families concerning which complaints have been reported to the Department. In many cases representations are made to the parents, where the complaint of neglect is confirmed and the desired reform is effected. In addition, the probation officers attend to proceedings of the Children's Court and subsequently visit the parents of the children that have been charged. A report is presented to the presiding magistrate, dealing with the condition of the home and of the child. It is stated that the appointment of an additional officer would result in the placing out on probation of a larger number of children. It is stated that this would lead to economy, as it would obviate the necessity of paying subsidy for the children. No mention is made of the advantage or disadvantage to the child, if it were allowed to remain in its own home after this has been put in order.

During the course of the 12 months 469 persons applied for licences as foster mothers. Of these, 442 were granted a licence. In 15 cases the application was withdrawn and in 12 it was refused. Thirteen licences previously held were surrendered and one was cancelled. The number of children supervised during the year was 2,391. Of these, ten were adopted by their foster mothers. It appears that 266 adopted children were kept in unlicensed homes, while the total number of children under supervision in these unlicensed homes was 1,542. During the course of the year 345 were found in unlicensed houses and were consequently subjected to supervision. In 17 instances the children were delicate and not in good health, while in 319 they were said to be well. Of these homes, six were said to be in excellent condition, 22 were said to be very good, 229 satisfactory, 68 fair and seven unsatisfactory. Thirteen of the homes had not been visited at the time of the report.

The number of children who passed from supervision during the year was 421. Of those in unlicensed homes, 201 ceased to be visited on reaching the age defined by the *Act*, 30 died, 33 could not be traced, 31 obtained exemption, 30 had left the State, seven obtained admission to orphanages, etc., six were committed to the State and four were taken by their parents. Of those in licensed houses, 28 had reached the age of exemption, 38 were claimed by parents, six died, four left the State, two were committed to the State and one was admitted into an orphanage.

The number of maternity homes under supervision was 219. Nineteen of these homes were closed during the year. The total number of cases attended in the homes under supervision was 4,057. The Council complains that it has no power of control over these homes, although it has the right of supervision. This is held to be detrimental to the patients.

The remainder of the report deals with the financial arrangements connected with the activities of the State Children's Council.

RETURNED MEDICAL OFFICERS' ASSOCIATION.

A meeting of approximately 50 medical practitioners who have returned from active service with the Australian Imperial Force was held at the No. 5 Australian General Hospital, St. Kilda Road, Melbourne, on May 23, 1919, for the purpose of forming a returned medical officers' association. Mr. G. A. Syme was elected to the chair and Dr. J. R. Williams was appointed Honorary Secretary. It was determined that the Association should have for its objects the discussion of subjects of naval and military medical importance and of preserving the interests of the members and for general social purposes. A Committee was appointed to draw up a constitution. We understand that returned men who have served in the Royal Army Medical Corps as well as those who have served in the Australian Army Medical Corps, will be eligible for membership. This Association is quite distinct from the Medical Corps Association, which has also been formed in Melbourne about the same time. The Medical Corps Association has elected for its President Dr. A. H. Sturdee, C.M.G., for its Vice-Presidents Dr. A. J. Brenan and Warrant Officer Robertson. Members of the Committee are Drs. Williams and Allen, Sergeant Fornich and Messrs. Liefman and Jackson. The temporary Honorary Secretary is Staff-Sergeant W. H. Kyte. The object of this Association is to form a permanent bond of union between the members of the Army Medical Corps, including commissioned and non-commissioned officers and men. *The Medical Journal of Australia* wishes both Associations a very prosperous career.

It has been determined, in accordance with the provisions of the *Quarantine Act, 1908-1915*, that brushes and other toilet articles containing or made from the hair of animals, may not be imported from Eastern and South-eastern Asia, India, Ceylon, Japan, the East Indian Islands and the Philippine Islands, unless a certificate from a responsible official of the Health Department of the country of origin within 60 days of the arrival of the goods in Australia, satisfactorily identifying them and certifying that the hair contained in them or from which they are made, was effectively cleansed and disinfected before manufacture.

The Medical Journal of Australia.

SATURDAY, JUNE 7, 1919.

Military Service in Australia.

Within a few weeks we have on two occasions found it necessary to direct the attention of our readers to the fact that the Department of Defence requires an ever increasing number of medical officers to look after incapacitated soldiers on their return from active service. These men are arriving week by week and already the military hospitals are filled. The Department has pledged itself to provide the medical treatment necessary to restore to them the maximum power of working. The fact that an independent department, the Department of Repatriation, has been set up to take charge of the men after discharge, does not alter the obligation of the military authority to provide hospital treatment as long as it may be required. During the currency of the war the medical profession responded splendidly to the call and a very large number of medical practitioners threw their personal interests to the winds, in order to do their duty to their country. It is true that in the latter months of the war the response for more men was poor, but it can be said without fear of contradiction that the enlistment for duty with the Australian Army Medical Corps overseas was very much better than was the enlistment for combatant duty. It will be remembered that the authorities relied largely during the year 1918 on the wholesale joining up of young men immediately after graduation. Hostilities have ceased and the average man wants to turn his attention to his civil practice. Many, no doubt, have a sort of vague feeling that the Department of Defence will muddle through with its job of providing hospital treatment to the disabled soldier on his return and that after discharge, and after a similar process of muddling on the part of the Department of Repatriation, the uncured man will eventually turn up as a civil patient. Others consider that the Department is concerned with this matter, not they. They recognize no obligation to assist the authorities in carrying out the promise in the spirit as well as in the letter. It thus comes about that the appeal to the civilian practitioner to take a hand in restoring lost functions and in healing war injuries and war illnesses falls on deaf ears. The Department of Defence is placed in a quandary. Arrangements are made for the immediate demobilization of medical officers who have served abroad, but someone has to fill the positions of resident medical officers in the home military hospitals, and if no or but few civil practitioners are available, the returned medical officer has to be retained in the forces to carry out these duties. It is gall and wormwood to men who have spent two, three or four years on active service to prolong the period of military duty after their arrival home.

We appeal for the third time within a brief period to medical practitioners who have not served, to come to the aid of their colleagues. Young men, freshly from the medical schools, should enlist for home service to take up the resident positions. Suburban and metropolitan practitioners in the large cities should offer their services for a few hours each week to attend soldier patients in the orthopædic clinics and the surgical or medical wards or out-patient departments of the military hospitals.

Much of the work is highly specialized work, but in the absence of a sufficient number of trained specialists, general practitioners are needed. Provided that they are willing to learn new methods and to fall into line with the new order of things, the general practitioners of Australia can perform very valuable service at a small sacrifice of time. Unless they come forward willingly, the authorities will be compelled to utilize the services of returned Australian Army Medical Corps men. It is no use blaming the authorities.

THE DIFFERENTIATION OF NEARLY-RELATED BACTERIA.

The similarity of the morphological, tinctorial and cultural characters of closely related bacteria has caused bacteriologists to devise means for their individual recognition. In some cases an entirely artificial line of investigation has been followed and, while this method has undoubtedly proved itself to be helpful and useful, it has never been demonstrated that the

fundamental principle on which it is based, is sufficiently sound to justify a classification to be built up on it. This method is the sugar test method. It has been found that when artificially grown certain bacteria dissociate some of the sugars by a ferment-like action. It is quite inconceivable that a bacterium could come into contact in nature with a substance such as raffinose or sorbite. The fact that under given conditions certain bacteria produce acid and gas when grown in the presence of certain sugars, appears to us to indicate rather a varying degree of ferment activity than a specific ferment action. Nevertheless bacteriologists of to-day are satisfied to classify the intestinal organisms into groups and subgroups, in accordance with their power to dissociate these sugars. This method of identification, however, is not sufficiently sharp to satisfy the needs of diagnosis. Greater reliance can be placed on the serological tests, since by them a natural character of the bacterium is ascertained. Unfortunately these tests are usually neither entirely specific nor capable of exact quantitative determination. In the case of the bacteria of enteric fever, of the paratyphoid fevers and of dysentery, the serological test applied is usually the agglutination test. These tests yield, within certain limitations, a perfectly reliable reply to the enquiry. Provided that no artificial immunization has previously been carried out with the causal organism of the existing infection or with an allied bacterium, a positive agglutination test may be regarded as definite evidence of an infection with the homologous organism. The test is to some extent arbitrary, inasmuch as a positive reaction is recognized when agglutination occurs with a serum diluted at least a given number of times. It must not be supposed that the extent of the dilution, or agglutination titre as it is called, represents a quantitative measure of the agglutinin content of the serum. In other words, a serum that agglutinates *Bacillus typhosus* in a dilution of 1 in 2,000 does not contain twice as much agglutinin as a serum that yields a positive result when the dilution reaches 1 in 1,000. There is reason to assume that in addition to the specific agglutinin, there is present in the serum a co-agglutinin. Expressed in other words, the serum is endowed with the power to cause the clumping of typhoid bacilli and the added power of causing clumping of other organisms belonging to the same group. It is, indeed, probable that the specificity is extremely delicate. By serological reactions it is possible to differentiate types of the same organism, solely through the greater susceptibility of each type of organism to the ferment activity of the immune body produced by that type as compared with all others. There is another explanation of the fact that the agglutinin test is not quantitative in the strict sense. The test is carried out in such a manner that the concentration of the protein fraction endowed with the ferment power varies according to the dilution. This means that the physical conditions of the experiment differ in each tube. Moreover, nothing is actually measured in the test. In a precipitin test the amount of protein thrown out of solution can be weighed, but in the agglutination test, all that is determined is the quantity of serum that will bring about a certain phenomenon. The recognition of this limitation of the more usual serological tests is necessary for a better understanding of the processes involved in immunity.

At times the usual serological tests fail to demonstrate all the differences between very closely related bacteria. Still more delicate methods must be employed in the differentiation. It has been found that among the intestinal group of organisms there exist bacteria which have the same cultural and agglutination characters as other members of the group and yet are not identical with them. Bainbridge and other workers at the Lister Institute devised some ten years ago a highly ingenuous method of attacking this difficult problem. When a bacterium is kept in contact with its homologous serum, absorption of the specific agglutinin is said to take place and a test carried out subsequently with the serum freed from the bacteria and the various members of the group will yield a greatly lessened agglutination. This is supposed to be effected by the co-agglutinins. The absorption test is used to distinguish between the very nearly related bacteria. While there are many sound reasons in support of the adoption of this test, it is necessary to realize that owing to its somewhat inexact nature and to the defects in the determination of the end-points of agglutination, some observers do not admit it as a means of distinguishing nearly-related organisms.

Despite these objections, these methods must be admitted as practical means of arriving at an exact diagnosis. That they will some day be replaced by more accurate reactions, few will deny. They serve an important function at present, in proving the extraordinary fineness of the specificity of pathogenic bacteria. This matter is not of mere theoretical significance, since it means that it is necessary to distinguish between types of bacteria, if we aim at advance in the prophylaxis and treatment of infective diseases.

VITAL STAINING.

The study of the animal cell undergoing artificial cultivation *in vitro* has been utilized by a number of American *savants* for the purpose of determining some of the more intricate points connected with its physiology. Recent work of this description is throwing some light on the distinction between the metabolic products of the cellular protoplasm and extraneous matter that gains access to the cell. At present it appears to be impossible to obtain accurate information concerning the chemical changes that take place within the cell under living conditions, partly because the changes result in the liberation of extremely minute quantities of the dissociation products of proteid material and partly because no methods have been devised for isolating cytoplasmic material from nuclear material without killing the cell. In these circumstances it has become a necessity to employ certain dyes spoken of as vital stains, which can be applied to the living cell. In certain cases no chemical combination takes place between the dye and a particular part of the cell and this negative information can be utilized in the analysis of the cell constituents. In the next place the demonstration of the capability of a part of the cell to combine with a dye of known chemical constitution yields valuable, albeit indirect evidence concerning the structure of the former. In the third place when a given dye yields a characteristic colour reaction with a given part of a cell, the chemical nature of the reaction constituent can be recognized. The work that has been accomplished along these lines, reveals the immense difficulties that stand in the way of a complete elucidation of the mysteries of the chemistry and physiology of the individual cell. If Dr. Warren H. Lewis's surmise prove correct that the so-called vital dyes stain only the non-living cytoplasmic inclusions, the prospects of a better understanding of the cell will be distinctly improved. Dr. Lewis has been engaged on an elaborate research into the characters of fibroblasts of the embryonic chick growing *in vitro*.[1] In the course of these studies he has found that the cells growing in his cultures contained granules and vacuoles after attaining a varying age. The granules were few in number in the normal cells, but in those cells showing vacuoles their number increased greatly. The vacuoles stained pink with Nile blue or brilliant cresyl blue, while the granules stained blue or purple. When stained with janus black No. 2 and neutral red, the granules took on a red colour, not being affected by the janus black, while the mitochondria appeared as black lines. He regards the granules as degeneration products not associated with the mitochondria. They are probably waste products of protoplasmic metabolism. He is also of opinion that the vacuoles are degeneration products. When the vacuoles accumulate beyond a certain extent, the cell dies and as the cell dies, the vacuoles disappear. In this way the moth-eaten appearance of the dead cell is accounted for. The fact that both granules and vacuoles take up the vital stains is thus quite compatible with the assumption that only non-living cytoplasmic inclusions are able to absorb the dye and to react with it. The same holds good for those food globules and dust particles which appear frequently in the cell cultures. In order to defend his proposition he is forced to regard the mitochondria as non-living cell inclusions. Mitochondria have been regarded by many physiologists as being concerned with the transmission of hereditary quantities and with the determination of the structure of the cell during histogenesis. A careful consideration of these claims does not convince Dr. Lewis that mitochondria are endowed with these properties. Cowdry is inclined to the opinion that they are concerned with the metabolism of the cell and with protoplasmic respiration. This function may be performed by a non-living substance as purely chemico-physical phenomena. Dr. Lewis instances the stored-up yoke granules of eggs as examples of non-living protoplasmic inclusions endowed with functions of this kind. The staining of the granules and of the mitochondria is quite different to the phagocytic ingestion of stain granules, such as that described by E. L. and E. R. Clark in the endothelial cells of the tadpole's tail. Very many instances are known in which the dead contents of cells stain with avidity with neutral red. As far as the granules and vacuoles are concerned the fact that the cell does not increase in size when large accumulations occur, indicates that they are derived either from the food of the cell or from the waste products. Dr. Lewis points out that these cells can be grown in Locke's fluid, either with or without the addition of dextrose, bouillon or egg-yolk. The granules appear when the cells are grown in Locke's fluid, in circumstances that would render the storing up of food-stuffs out of the question. He therefore accepts the alternative that they are waste products. The altered environment of the cell in culture necessarily leads to an arrest of the normal metabolism. This may be effected by the absence of oxygen, salts or food-stuffs, or by the interference with the osmosis of the cell by an accumulation in the culture medium of waste products. He has made many observations for the purpose of establishing the elementary facts of the significance of the granules, vacuoles, mitochondria and food globules in the cell. The impossibility with the means at present at our disposal of ascertaining the identity or otherwise of the waste products within the cell and in the medium bars rapid progress in these studies. In discussing the relationship of the granules and vacuoles with the centriole and the centrosphere, he

[1] *Johns Hopkins Hospital Bulletin*, April, 1919.

becomes even more speculative, since the only data on which he can build, are that during degeneration there is an accumulation of peculiar cytoplasm around the centriole and that this accumulation or centrosphere does not undergo vacuolization. It has also been noted that the granules and vacuoles tend to aggregate around the centriole. Beyond these observations, nothing is known concerning the enlargement of the centrosphere.

BACILLUS AERTRYCKE INFECTION.

Captain H. Marrian Perry and Captain H. L. Tidy have utilized an outbreak of an infective illness in a depôt in France, assumed to be caused by "food poisoning," to investigate the bacteriology and epidemiology of *Bacillus aertrycke* and to contribute information concerning the differentiation of this organism from Schottmüller's paratyphoid B bacillus.[1] It appears that on April 7, 1918, an affection of a peculiar type made its appearance among the persons in the depôt. Enquiry elicited the fact that two children living in a farm a short distance from the depôt had access to the kitchens for the purpose of collecting pig swill and both were taken ill with diarrhœa on April 13. A bacillus was isolated from the stools of these children. No bacteriological examination of the food in the kitchen was undertaken until April 25, and by that time nothing in the kitchen was infected with bacteria of the food poisoning or Salmonella group. The exact number of men infected is unknown, since many were not severely affected and did not report themselves. It was, however, ascertained that 845 men had suffered from diarrhœa up to April 28, 1918, and a further 215 had been transferred to a hospital for clinical and bacteriological investigation. The type of the condition became less severe about the third week in April and the last infection was detected on May 2, 1918. Closer study of 277 cases revealed the fact that 147 were severe and 130 mild infections. In 59 cases *Bacillus aertrycke* was isolated from the stools. The percentage of cases of aertrycke infection was 21.7. It was clearly shown that previous, recent or remote inoculation with typhoid and paratyphoid vaccines neither lessened the incidence of this infection nor modified its severity. The authors have unnecessarily laid themselves open to criticism by failing to separate the cases in which there was bacteriological evidence of the presence of *Bacillus aertrycke* from those in which this organism was not found. On the other hand the number of cultures obtained from the patients is ample to support their contention that the illness was due to this micro-organism. The identification was studied in 78 cases. The bacillus was found to be Gram-negative, motile and occurring in long filaments. It did not ferment lactose or saccharose, but produced acid and gas in the presence of glucose, mannite and dulcite. It rendered litmus milk permanently alkaline. Indol was not produced in any of the cultures. In every case the bacilli were agglutinated by the specific sera for *Bacillus paratyphosus B* and *Bacillus aertrycke*.

It will be remembered that Gaertner isolated in 1888 a bacterium from the spleen of a person who had become infected from tainted meat. The same organism, which he called *Bacillus enteritidis*, was isolated from the meat. Ten years later De Nobele discovered in a village in Belgium called Aertrycke an organism associated with food poisoning which corresponded to Gaertner's bacillus very closely. In 1896 Achard and Bensaude discovered a bacillus in an illness closely resembling enteric fever. This bacillus was shown to be dissimilar to Eberth's typhoid bacillus and was consequently called *Bacillus paratyphosus*. Four years later Schottmüller was able to differentiate two forms of the paratyphoid bacilli, the first, which is usually known as *Bacillus paratyphosus A* of Kayser, being a fresh type. Schottmüller claimed that type B was identical with Achard's bacillus. The German school still holds that the so-called food poisoning organism is Schottmüller's *Bacillus paratyphosus B* and that this organism is identical with *Bacillus aertrycke*. It is further important to refer to the position of *Bacillus suipestifer* of Salmon and Theobald Smith. This organism was discovered in 1885 in connexion with swine fever, but it has since been shown that its relations to the infection are those of a secondary invader. Moreover, it is now practically established that this bacterium is identical with *Bacillus aertrycke*. The organisms referred to can be distinguished from others of the coli group, including the typhoid bacillus, by the sugar reactions. *Bacillus enteritidis* of Gaertner is agglutinated specifically only by its homologous serum and can thus be distinguished without difficulty. In the case of the other three, *B. paratyphosus B, B. suipestifer* and *B. aertrycke*, a differentiation by means of the agglutination test is impossible. The first named can be separated from the other two by means of the absorption test. This test applied to the organisms isolated from the patients in the epidemic demonstrated that they were undoubtedly aertrycke bacilli and that they corresponded closely to the stain isolated in Newport a few year ago. The serum of the patients agglutinated standard strains of this bacillus during the second week of infection. The highest titre was reached in a test case on the 20th day, while the titre had receded to a low, negligible level by the 44th day. Inoculation with this strain in a healthy man produced a response between the 9th and 12th day. In the case of a man who had previously been inoculated against enteric and paratyphoid fevers, the response was much greater than it was in a man who had not been immunized with other members of the same group. It is curious to note that the absorption tests reveal co-agglutinins of still greater activity than do the two curves of the agglutination titre of the serum of the men immunized with *Bacillus aertrycke*. Unfortunately the authors have not repeated these experiments many times, so that average results could have been determined.

The investigations demonstrated that many individuals carried these bacilli long after clinical recovery. It is assumed that since the epidemic was kept going after the offending article of diet had disappeared from the kitchen at the depôt, it was perpetuated through the intermediation of the acute and chronic carriers. The authors hold strongly to the view that the disease in the first instance, affecting the

[1] Special Report Series, Medical Research Committee, National Health Insurance, No. 24. A report on the investigation of an epidemic caused by *Bacillus aertrycke*.

two French children, was an infection from tainted food-stuff. The probability cannot be gainsaid, but no direct evidence has been adduced. Further it may be pointed out, in view of the indefinite results obtained from infection of laboratory animals with the bacillus, that the authors have not proved its causal relationship with the disease. They have shown that *Bacillus aertrycke* was present and produced a biological response with the organism of the host. Whether it produced pathogenic changes or not has not yet been demonstrated.

PROTOZOAL INFECTIONS IN GREAT BRITAIN.

The microscopical examination of the stools which has been practised in recent years has led to the discovery of certain protozoal parasites in the intestines of persons who have never left the shores of Great Britain. These protozoa, such as *Entamœba histolytica, Giardia intestinalis* and *Chilomastix mesnili,* had been previously regarded as denizens of tropical and semi-tropical climates. Their occasional presence in those living in Northern Europe had been ascribed to their survival in those who had visited warmer countries and had become infected during their sojourn abroad.

An investigation[1] has been carried out by J. R. Matthews and A. Malins Smith among civilians in the Liverpool Royal Infirmary and among recruits for the Army. The patients from the Infirmary consisted of men, women and children selected at random. They had been admitted mainly for surgical complaints. Among 450 persons, seven were found harbouring *Entamœba histolytica,* thirty *Entamœba coli,* twenty-seven *Giardia intestinalis* and seven *Chilomastix mesnili.* None of the persons infected with *E. histolytica* had ever left Great Britain, and three had not been beyond Liverpool. Of the seven persons in whom *Entamœba histolytica* were identified four were under twenty years of age, one was aged twenty-four years and two were over forty years old. In all these persons only a single examination of the stools was undertaken. In the light of recent studies the number of infections, therefore, represents a minimal percentage.

A series of examinations were performed on the stools of young recruits for the Army at a camp near Liverpool. In all 1,098 soldiers were subjected to a single microscopical scrutiny. Sixty-one were discovered to be infected with *Entamœba histolytica,* two hundred with *Entamœba coli,* seventy-six with *Giardia intestinalis* and two with *Chilomastix mesnili.* It is not clear why a greater prevalence of infections should occur among recruits than among the general population of Liverpool. The suggestion that the infection is spread by the concentration of men in camps, appears to be negatived by the fact that there was no greater percentage of infections among those who had been some months in camp than among recent arrivals. There is an indication that infections are more common in the early years of life.

These studies show that these intestinal protozoal infections are by no means infrequent among the population of Great Britain. In the absence of definite information it is idle to speculate about the source of these infections. They may have been prevalent for years or they may have been introduced during the last few years from returned soldiers who have, many of them, been exposed to infections with these intestinal parasites. The percentages of infections among returned soldiers from Egypt are not materially higher than those found in these investigations. There is, however, an important difference in the infections. A considerable number of men who have been abroad, become victims of acute amœbic dysentery, while the number of cases among those who have never left Great Britain is comparatively small. It is to be greatly desired that these studies will be extended so that accurate information will be available as to the extent of these infections in temperate countries.

[1] *Annals of Tropical Medicine and Parasitology,* Vol. XII., p. 349, February, 1919.

THE LODGE DISPUTE IN VICTORIA.

Members of the Victorian Branch of the British Medical Association are warned that efforts are being made by the managers of the Manchester Unity Lodge to draw individual medical men into a discussion of a possible agreement with them.

The Council of the Branch desires that this invitation should be firmly declined and that no conference between members of the Branch and managers of the lodges should be held. The Manchester Unity has repeatedly expressed their readiness to deal with the doctors directly, without any intermediation of the British Medical Association, knowing well that when there is a combination on one side and an individual on the other, the result is always disastrous to the individual.

BIRTHDAY HONOURS.

The announcement that Dr. J. C. Verco has been created a Knight Bachelor on the occasion of His Majesty's birthday, has caused great satisfaction throughout the whole Commonwealth. The medical profession has long since assessed his professional and scientific value at a high figure, and his reputation is world-wide. The *Journal* congratulates him most heartily on the public recognition of his merits.

Among the other recipients of birthday honours is Sir John McCall, who has been made a Knight Commander of the Order of Saint Michael and Saint George. Sir John's name appears on the medical register of Tasmania, although we understand that he has not practised medicine for some years.

We have also to congratulate Sir John Henry MacFarland, the Chancellor of the University of Melbourne, on his knighthood. Sir John has been associated with the Council of the University since 1886. He followed Sir John Madden as Chancellor of the University. He is a member of the Advisory Boards of the Melbourne Hospital and of the Women's Hospital and has associated himself in many ways with the welfare of the medical profession.

PNEUMONIC INFLUENZA.

Since we went to press last week four further proclamations dealing with the influenza epidemic have been published in the *New South Wales Government Gazette.* The first, which bears the date of May 23, 1919, has the effect of altering the boundaries of the infected area around the town of Cessnock. The second was published on May 26, 1919, and removes the restrictions imposed on the inhabitants of Wilcannia, while the third and fourth, published on the same day, remove the restrictions imposed on persons in the areas of the Shire of Illabo and the municipality of Lithgow.

Abstracts from Current Medical Literature.

THERAPEUTICS.

(198) Intoxication by Arsphenamine.

D. E. Jackson and M. I. Smith have made an experimental investigation of the cause of early death from poisoning by arsphenamine and of certain other features of the pharmacological action of this substance (*Journ. Pharm. and Exper. Therapeutics,* November, 1918). They have analysed the effects of different preparations of arsphenamine on the cardio-vascular apparatus with a view to discovering the cause of the acute reaction so often seen in hospitals, from this drug. The slow injection of amounts not more than 10 mg. per kilo in 2% solution or less into dogs produces no immediate change in the circulation. If the rate of injection is accelerated and the dose increased, definite effects are manifested. A slight but gradually progressive dilatation of the heart occurs along with a slow fall of blood pressure. A sudden fall of blood pressure may occur with rapid injection of the drug. The disturbance in the function of the heart is due to steadily increasing pulmonary blood-pressure. This heightened blood-pressure in the pulmonary circuit is believed to be due in part to the alkalinity of the solution of arsphenamine and in part to the pharmacological action of the drug. The volume of the spleen is usually increased and the volume of the kidney diminished after an injection. The authors have been unable to observe any sign of the formation of pulmonary emboli due to precipitation of the drug in the blood-stream. The right heart is greatly embarrassed after toxic doses, since the pulmonary pressure may be augmented to 100% above the normal height. The systemic pressure is reduced below the normal level by a varying amount (25% to 50%). This condition of the heart leads to a state of instability which no doubt accounts for the occasional occurrence of *delirium cordis.* Since acids give rise to precipitation of solutions of arsphenamine, the authors have tested the effects of breathing high concentrations of carbon dioxide. They have not been able to observe any increased toxicity in injections of arsphenamine under these circumstances. The toxicity of arsphenamine does not appear to be raised by the previous injection of mono-sodium phosphate or calcium lactate. A number of intermediary compounds formed during the process of manufacture of arsphenamine have been studied, but none have been found to be as poisonous as arsphenamine. The presence of these bodies cannot therefore account for the varying toxicity of different samples of arsphenamine. A number of substances have been examined in the hope of discovering some substance that could be employed in the treatment of the condition of poisoning by arsphenamine. The only substance which has been found to be of benefit in prolonging the life of dogs under experimental conditions is tyramine. The authors recommend the use of this drug, but they point out that it must be employed early to have any effect.

(199) Poisoning with Camphorated Oil.

R. W. Benz (*Journ. Amer. Med. Association,* April 26, 1919) describes twenty cases of poisoning among children due to the administration of *linimentum camphoræ* in place of castor oil. The children were inmates of an institution, and varied in ages from four to ten years. The quantity of camphorated oil taken ranged between one and one and a half tablespoonfuls, according to the age of the child. The medicine was taken at 6.30 a.m. and the first symptoms were observed at 7.15 a.m. The rest of the children became ill in half an hour. On examination at this time the children were sprawled over the dormitory presenting symptoms from an expression of the face indicating nausea to convulsions. The most severe case showed the child to be unconscious and rigid, with the head drawn back. The colour was good except in the lips, which were blue-black. The body felt cold to the touch. No perspiration was apparent. The pulse was 120 and of good volume. The respiration was slow and shallow. The pupils were equally dilated. The odour of camphor was noted in the breath. The jaws were locked by masseteric tetanus. There was cervical rigidity. The arms exhibited tonic contractions. The legs were extended. The mild cases were treated with mustard and water. Emesis occurred in a few minutes and the children were well in 20 minutes. The children with spasms were immersed in hot mustard water until the muscles relaxed. They were then given by force a cup of mustard water. Vomiting was assisted by upward pressure of the abdomen. Recovery occurred in three to four hours. One child remained comatose for 20 hours, but had recovered after 30 hours' illness.

(200) Action of Caffeine Upon Oxidation.

W. E. Burge (*Journ. Pharm. and Exper. Therapeutics,* November, 1918) has made a series of estimations of catalase in the blood of dogs, rabbits and cats after the administration of caffeine and some other drugs. He has already brought forward evidence to show that substances increasing the rate of oxidation within the body produce a corresponding increase in the amount of catalase in the blood as a result of stimulation of the digestive glands, especially the liver. This excitation leads these organs to set free a larger quantity of catalase. Conversely, substances which lessen the processes of oxidation within the animal organism, bring about a diminution of the amount of catalase in the blood by lowering the output from the liver. Under these circumstances there is also destruction of the enzyme in the blood. The observations on the quantity of catalase have been made every fifteen minutes after the administration of the drug. Caffeine and theobromine increase the amount of catalase in the blood obtained from the jugular vein. Anæsthetics, such as chloroform, ether, nitrous oxide and magnesium sulphate, lessen the production of catalase. The amount of catalase in the blood from the liver is greater than in the blood of the general circulation. In the presence of the volatile anæsthetics the amount of catalase in the blood is diminished rapidly upon standing.

(201) Treatment of Burns with Magnesium Sulphate.

S. J. Meltzer records the results of experiments in which concentrated solutions of magnesium sulphate in water have been applied to scalds in rabbits (*Journ. Pharm. and Exper. Therapeutics,* November, 1918). The ears of rabbits under deep ethereal anæsthesia have been immersed in hot water for some minutes. At the end of this period one ear has been placed in 25% aqueous magnesium sulphate solution and the other ear in normal saline solution. The ears have been kept submerged in the liquids from two to three hours. A number of preliminary experiments have been made to ascertain the length of time for the submersion of the ears in hot water to elicit such a degree of inflammation as would afford undoubted evidence concerning the efficacy of magnesium sulphate. When the ears have been immersed for three minutes in water at 63° C. or over, a burn leading to subsequent necrosis of the ear has been produced. The application of a solution of magnesium sulphate has not modified this result. When the water has been heated between 56° C. and 63° C., the influence of solutions of magnesium sulphate in retarding or in preventing the consequent inflammation has been clearly manifested. Some photographs illustrate the differences between the ears and confirm the efficacy of the 25% solution of magnesium sulphate in averting the effects of scalding the ears. The author has noted the healing influence of molecular solutions of magnesium sulphate in arresting the development of burns of the second degree in the human subject. This action is witnessed when the solution is applied early, but not when this treatment is delayed.

UROLOGY.

(202) Unilateral Renal Tuberculosis.

Herman L. Kretschmer (*New York State Journ. Med.,* April, 1919) raises the question of the comparative value of medical and surgical treatment of renal tuberculosis. He claims that careful investigation has failed to reveal a curative effect of tuberculin or of other medical means. A number of instances have been reported in which symptoms have disappeared after the institution of sanatorium treatment or the application of tuberculin and other remedies. The disappearance of tubercle bacilli from urine does not necessarily

indicate cure. Relapses have occurred after the bacilli have disappeared for a time. Similarly, the disappearance of pus from the urine may be transient. The diminution of vesical symptoms is often but a temporary improvement. The author claims that the diagnosis should be made as early as possible and that nephrectomy should be carried out as soon as the tubercular nature of the lesion is established, provided that the second kidney is present and functionating. He appeals to general practitioners to improve their method of diagnosis during the early stages. He claims that in every case of cystitis that does not yield to treatment within a reasonable time, the practitioner should think of the possibility of renal tuberculosis. It is often unnecessary to have recourse to special instruments. Frequency of micturition and other signs of vesical irritation are usually present. The practitioner should seek for evidence of glandular tuberculosis or of a past bone or joint tuberculosis. The author maintains that it is rarely difficult to demonstrate tubercle bacilli in the urine, when they are present. The search, however, often occupies a long time. If necessary, the urinary sediment should be injected into the guinea-pig, but he warns his readers that even this method may fail to reveal an existing infection. At times the pus and bacilli from a closed tubercular pyonephrosis failed to reach the bladder and in these cases examination of the urine leads to negative results. Cystoscopic examination and urethral catheterization, together with a thorough general examination, will lead the practitioner to a correct diagnosis in these cases. Great difficulty is met in certain rare cases in which the bladder is so contracted that a cystoscopic examination cannot be carried out. Among the other methods of diagnosis, Kretschmer refers to the removal of a portion of the œdematous mucous membrane through an operating cystoscope, and to skiagraphy. Both these methods are of undoubted value under rare conditions. As a last resort, he advocates an exploratory operation for diagnostic purposes.

(203) The Formed Elements in Urine.

A. Kakowski maintains that a proper analysis of urine is rarely carried out in practice, because the proprietors of clinical laboratories have little appreciation of the scientific value of this work and the pure scientist pays small attention to the urine and kidneys of man (*Urolog. and Cutan. Review*, April, 1919). He turns his attention to the question of the formed elements and points out that an exact quantitative analysis is not undertaken. At times the report contains the statement that there are a given number of red blood corpuscles in the microscopical field. This, as he points out, means nothing. He describes a cell that he has devised to contain 0.01 c.cm. of fluid. His method consists in collecting the urine voided on awakening in the morning, taking 100 c.cm. of it and subjecting it to careful centrifugalization at a set speed, removing the supernatant fluid, leaving 0.2 to 0.3 c.cm. of clear fluid over the sediment, shaking the sediment carefully in this layer and adding a measure quantity of stain to the suspension. The cell is then filled and the formed elements, blood corpuscles, casts and epithelial cells, are counted in a given number of squares or rectangular spaces. From the resultant number the total quantity of cells or casts can be calculated. He insists that the diet shall be uniform and properly regulated, that the amount of exercise and rest shall be minutely prescribed and that the sample shall be collected after complete rest in bed during the night. Only when these precautions are taken, is it justifiable to compare the results of the analysis of the urine. He regards it much more important to keep a record of the analysis of the morning urine than to collect a 24-hour sample, which introduces an error due to the effect of a varying amount of exercise and other varying conditions associated with the day's regime.

(204) Infection of a Fused Kidney.

L. Buerger records the case of a fused kidney with duplication of the left renal pelvis and ureters and discusses some of the chief practical points in connexion with the diagnosis and treatment (*Surg., Gynec. and Obstet.*, February, 1919). In the first place he emphasizes the necessity of making both a Röntgenological and a cystoscopic examination. In his case repeated attacks of fever and other symptoms of renal involvement were unassociated with any localizing signs. The presence of pyuria might easily lead the surgeon to overlook the true nature of the process unless a thorough examination were carried out. He demonstrated that by means of cystoscopy the presence of a reduplication of the ureter and renal pelvis on the left side could be ascertained, and further that, before the disintegrated kidney was removed, it was possible to prove the existence of the right kidney, although this eventually was shown to be fused with the left organ. He finds that a fused kidney cannot always be diagnosed with certainty before the operation. In the next place, he attaches much importance to the appearance of the doubled pelves, since the nature of the shadow may indicate which pelvis is the more severely involved in the infective process. In this way the surgeon is warned of the difficulties he may be called upon to meet at the operation. His case further demonstrated that attacks of fever associated with recurrent rigors are indicative of pyelo-nephritis and multiple abscesses. In the last place, he is able to show that infection may occur in one of the pelves of a kidney with two ureters, without invading the parenchyma corresponding to the other pelvis.

(205) Renal Colic due to Oral Sepsis.

W. H. Gehl has observed a case of recurrent attacks of lumbar pain, indistinguishable from renal colic, lasting for over two years, which proved to be due to absorption from a purulent affection of a tooth (*Urolog. and Cutan. Review*, April, 1919). The patient had had a very severe attack which lasted for two days and had been given many doses of morphine to relieve the acute pain. The Wassermann test was negative. Nothing abnormal was discovered by cystoscopical examination and the prostate and vesiculæ were natural. The urine from the right kidney was normal. That from the left contained 2% of albumin, a large amount of pus cells, a few red blood cells, a few hyaline casts and some colon bacilli. The functional tests revealed that the left kidney was not working well. No gross changes were discovered by pyelography. Relief was experienced from the installation of silver nitrate solution into the renal pelvis. Although the teeth appeared in good order, an X-ray examination of the mouth was carried out and a pus pocket was detected at the root of a crowned tooth. The tooth was extracted and the patient remained free from renal pain from that time.

(206) Gonorrhœal Chancres.

R. Burnier gives an account of a certain class of ulceration which occurs during the course of a gonococcal infection (*Urolog. and Cutan. Review*, March, 1919). Julien has described this ulceration under the term *chancre blenorrhagique*. It occurs in both sexes. The erosion may be oval or circular, and often simulates a papular or ulcerative syphilitic chancre. There may be an accompanying inguinal adenopathy, either suppurative or non-suppurative and more or less marked phimosis. The ulcers often show great chronicity and are difficult to heal. Autoinoculation occurs when the discharge is injected under the skin in some other part of the body. In the male the ulcers may be either single or multiple, while in the female they are usually multiple. He appends records of typical cases. Finally he records a case to illustrate the coincidence of a true syphilitic chancre with a gonorrhœal or blenorrhagic chancre. The treatment consists in the application of strong solutions of permanganate of potash, silver nitrate or zinc chloride. In obstinate cases it may be necessary to apply the curette or the thermo-cautery.

(207) The Collection of Samples of Urine for Analysis.

H. W. E. Walther (*Urolog. and Cutan. Review*, April, 1919) considers that it is useless and misleading to subject an ordinary sample of urine from a female patient to analysis, since any pus or bacteria discovered in it may be derived from outside the bladder or upper urinary tract. He cites cases in which the diagnosis of renal or vesical disease was made and the patient sent for operation on account of the discovery of pus and bacteria in the urine. When a sample was drawn off with ample precautions by catheter, the urine proved to be free from both and the symptoms of the alleged vesical or renal disease were removed by less severe means.

British Medical Association News.

ANNUAL MEETING.

The annual meeting of the Western Australian Branch was held through the courtesy of Dr. J. T. Anderson at the Hospital for the Insane, Claremont, on March 23, 1919, Dr. F. A. Hadley, the Vice-President in the chair. There were 34 members present.

Dr. Hadley apologized for the absence of Dr. R. C. Everitt Atkinson, the retiring President.

Annual Reports.

The Secretary read his annual report, which was received and adopted.

The Honorary Treasurer submitted his report together with a statement of accounts, duly audited.

The report and statement were received and adopted.

The annual report of the Council was also read, received and adopted.

Election of Office Bearers.

The chairman announced that the following had been elected office-bearers and members of the Committee:—

President: Dr. F. A. Hadley.
Vice-President: Dr. A. T. White.
Ex-President: Dr. R. C. E. Atkinson.
Honorary Treasurer: Dr. W. Trethowan.
Honorary Secretary: Dr. C. H. Shearman.
Members of Council: Dr. Dixie P. Clement, Dr. R. C. Merryweather, Dr. E. A. Officer.
Ethical Committee: Dr. Dixie P. Clement, Dr. R. C. Merryweather, Dr. E. A. Officer.
Honorary Auditors: Dr. M. Kasmer Moss and Dr. Allan E. Randell.

Induction of President.

On entering upon his duties as President, Dr. Hadley eulogized the work of the retiring President, Dr. Atkinson.

Dr. J. T. Anderson moved that a letter be sent to Dr. Atkinson, congratulating him on the stand he had taken in regard to the influenza epidemic in Western Australia and assuring him that he had the full support of the medical profession in the State. The motion was seconded by Dr. W. Trethowan and carried unanimously.

Scientific Address.

Dr. J. T. Anderson read a paper on paranoia.

National Medical Service.

A sub-committee appointed to consider the subject of nationalization of the medical profession, submitted its report. After discussion and some amendment, the report was adopted.

Life Insurance Certificates.

It was moved by the Honorary Secretary on behalf of the Council that the resolution of June 20, 1917, be rescinded and that the following be substituted in lieu there of:—

> That a fee of 10s. 6d. be charged for industrial insurance certificates for £100 or under and that in all other cases of examination for life insurance there shall be a minimum fee of £1 1s.

Dr. J. J. Holland and Dr. E. S. Humphrey opposed the alteration. The Council's motion was negatived.

Medical Officers' Relief Fund.

A letter from the trustees of the Medical Officers' Relief Fund was read. On the motion of Dr. E. A. Officer, seconded by Dr. F. Gill, it was resolved that a circular be sent, as requested, and that a committee be appointed at a later date.

The President extended the cordial thanks of the Branch to Dr. Anderson for entertaining the Branch, for allowing them to hold their annual meeting at the Claremont Hospital for the Insane, and for his interesting paper.

WEST AUSTRALIAN BRANCH BRITISH MEDICAL ASSOCIATION.

Statement of Receipts and Expenditure Year Ending December 31, 1918.

	£ s. d.	£ s. d.
Funds in W.A. Bank, January 1, 1918—		
On Fixed Deposit	325 0 0	
On Current Account	125 4 4	
		450 4 4
War Loan Bonds (5%)		150 0 0
Interest on F.D.R.	£10 0 0	
Interest on Bonds	10 15 0	
		20 15 0
Refund Victorian Branch		6 11 0
Subscriptions		306 1 6
Capitation Fees, London		1 0 0
Commission		1 6
		£934 13 4

	£ s. d.	£ s. d.
British Medical Association, London	108 13 6	
The Medical Journal of Australia	96 8 4	
		205 1 10
Sundry Expenses—		
Clerical Assistance	£39 7 6	
Printing Account	12 12 3	
Postages and Telegrams	8 17 6	
Exchange	12 1	
Legal	10 6	
Advertising	6 11 0	
Rent	2 2 0	
Attendant	2 2 0	
Federal Committee	2 18 0	
Telephone	17 6	
Cheque Book	5 0	
		76 15 4
Funds now in Hand, December 31, 1918—		
War Loan Bonds	£250 0 0	
W.A. Bank F.D.R.	325 0 0	
W.A. Bank Current Account	77 16 2	
		625 16 2
		£934 13 4

Audited and found correct—

(Sgd.) ALLAN E. RANDELL,
M. KASMER MOSS,
Auditors.

March 14, 1919.

SCIENTIFIC.

A meeting of the South Australian Branch was held at the House of the Branch, Hindmarsh Square, Adelaide, on April 24, 1919.

Dr. W. R. Regnell read a paper on "Some Psycho-Neuroses of the War" (see page 455).

Dr. W. T. Hayward was sure that all present would join him in thanking Dr. Regnell for his admirable, interesting and instructive paper. The subject brought before them was one of the utmost importance, not only in connexion with military work, but also in civil practice. The neuroses described had been in evidence from time immemorial. Though he could not claim that he had treated many of these patients, a very large number had been under his care. Unfortunately, he still saw a great many in connexion with the review boards. In England, during the early part of the war, the question as to the part played by organic lesions or functional disturbance in cases of shell shock and neurasthenia was widely discussed. He confessed that at first he

thought that the condition of the patients at Harefield Hospital must have been due to organic changes. His idea has been that most probably it was caused by microscopical lesions in the brain and spinal cord, such as those described by Mott in his Lettsonian Lectures and found in men who had died from mine explosions. More extended experince had gradually changed his opinion. He noted that the definite neurosis seldom appeared until some time after the original casualty, and that its severity bore no relationship to it. When two or three patients suffering from shell shock were in adjoining beds, though their symptoms had been quite different at first, they gradually assumed a similar character and the patients failed to improve. The improvement was dependent, to a large extent, on the personality of the medical officer in charge of the ward. So much was this the case that he ultimately placed all the severe cases under the care of one of his officers, who handled these cases with special skill. When in France he met Colonel Gordon Holmes, the consulting neurologist, who told him that he was able to send back to the line 80% of his shell shock patients within a fortnight.

Dr. Regnell's paper had finally convinced him that functional disorder must be the prime factor in these neuroses. If this had been recognized earlier, both in England and Australia, they would have been spared the sad sight of so many mental wrecks in their midst. Great harm had been done by the coddling the poor fellows had received, by the mistaken kindness in the gift of unlimited cigarettes and free drinks and, he might add, in many cases a thoughtless liberality in the matter of pensions. Under these circumstances recovery could not be expected. No blame should be attached to the soldier. In his opinion, if a man's incapacity for earning a living in such cases was total, he should be kept under treatment in hospital with vocational training until he could earn his living or until his case was pronounced to be hopeless.

The undermentioned have been elected members of the New South Wales Branch:—

Dominic Augustine Cahalan, Esq., M.B. (1919, Univ. Sydney), St. Vincent's Hospital, Darlinghurst.

James Arthur Hanrahan, Esq., M.B., B.S., B.A.O., R.U.I. (1909), 85 Dalhousie Street, Haberfield.

Hubert Richard Joseph Harris, Esq., M.B. (1913, Univ. Sydney), Stockton.

Carl Hermann Jaede, Esq., M.B. (1919, Univ. Sydney), Sydney Hospital.

Howard Maxwell James, Esq., M.B., Ch.B. (1915, Univ. Sydney), "Bodington," Wentworth Falls.

Arthur John Metcalfe, Esq., M.B., Ch.M. (1918, Univ. Sydney), 206 Stanmore Road, Stanmore.

Clarence James Middleton, Esq., L.R.C.P., Edin., 1917; L.R.C.S., Edin., 1917, L.F.P.S., Glasg., 1917, Garrison Hospital, Victoria Barracks, Sydney.

Vennard Francis Aloysius O'Neill, Esq., M.B., Ch.M. (1918, Univ. Sydney), "The Grange," Pitt Street, Kirribilli Point.

Sydney Michael O'Riordan, Esq., M.B. (1914, Univ. Sydney), "Killarney," Dudley Street, Coogee.

Ebenezer Alexander Sanbrook, Esq., M.B. (1915, Univ. Sydney), Arcadia Street, Penshurst.

Ralph Whishaw, Esq., M.B. (1918, Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

The undermentioned have been nominated for election as members of the New South Wales Branch:—

Reginald Aloysius Fitzherbert, Esq., M.B. (1913, Univ. Sydney), A.A.M.C. Headquarters, Rabaul.

George Frederick Hewer, Esq., M.B., Ch.M. (1919, Univ. Sydney), Devilliers Avenue, Chatswood.

Naval and Military.

HONOURS.

The *Commonwealth of Australia Gazette*, No. 61, of May 23, 1919, contains abstracts copied from the *London Gazette*, dealing with awards of military honours, etc.. These details have been published in *The Medical Journal of Australia* during the early months of the year. In addition there are given long lists of names of members of the Australian Imperial Force who have been mentioned in General Sir Douglas Haig's and General Sir E. H. H. Allenby's dispatches. The following are the names of the officers of the Australian Army Medical Corps included in these lists.

STAFF.

First Military District.

Colonel R. B. Huxtable, C.M.G., D.S.O., V.D.

Second Military District.

Major D. M. Embleton.

Lieutenant-Colonel (temporary Colonel) F. A. Maguire, D.S.O.

Lieutenant-Colonel (temporary Colonel) K. Smith, C.M.G.

Third Military District.

Major (temporary Lieutenant-Colonel) E. F. Lind.

Fifth Military District.

Colonel G. W. Barber, C.M.G., D.S.O.

SUB-STAFF.

First Military District.

Captain A. J. de S. Howard, 8th Field Ambulance.

Lieutenant-Colonel G. W. MacArtney, 10th Field Ambulance.

Major A. McKillop, 1st Field Ambulance.

Second Military District.

Major A. W. H. a'Court, 4th Field Ambulance.

Colonel J. A. Dick, Army Medical Corps.

Major G. B. Lowe, 5th Field Ambulance.

Major J. B. Metcalfe, D.S.O., M.C., 10th Field Ambulance (since died of wounds).

Captain S. V. O'Regan, M.C., 4th Field Ambulance.

Major V. W. Savage, 3rd Field Ambulance.

Third Military District.

Major H. I. Carlile, Army Medical Corps.

Major A. J. Collins, D.S.O., M.C., 12th Field Ambulance.

Lieutenant-Colonel A. F. Jolley, 9th Field Ambulance.

Major F. D. H. B. Lawton, No. 3 General Hospital.

Lieutenant-Colonel C. J. Martin, F.R.S., No. 25 Stationary Hospital.

Major C. Morlet, 13th Field Ambulance.

Major W. A. Morton, Army Medical Corps, attached 3rd Army Brigade, Australian Field Artillery.

Major J. D. Norris, 15th Field Ambulance.

Major R. St. C. Steuart, Army Medical Corps.

Lieutenant-Colonel W. G. D. Upjohn, 3rd Casualty Clearing Station.

Lieutenant-Colonel A. M. Wilson, D.S.O., 8th Field Ambulance.

Fourth Military District.

Major (temporary Lieutenant-Colonel) F. N. Le Messurier, D.S.O., 12th Field Ambulance.

Lieutenant-Colonel H. K. Fry, D.S.O., 13th Field Ambulance.

Major D. MacD. Steele, M.C., 13th Field Ambulance.

Major L. G. Tassie, D.S.O., 13th Field Ambulance.

Major F. L. Wall, M.C., 7th Field Ambulance.

Fifth Military District.

Major C. N. Finn, Army Medical Corps.

Lieutenant-Colonel A. H. Gibson, 12th Field Ambulance.

Major W. C. Sawers, 14th Field Ambulance.

Major (temporary Lieutenant-Colonel) V. O. Stacy, 2nd Casualty Clearing Station.

Sixth Military District.

Lieutenant-Colonel W. E. L. H. Crowther, 5th Field Ambulance.

First Military District.

Captain R. J. Silverton, Army Medical Corps.

Second Military District.

Captain A. M. Aspinall, Army Medical Corps.

Lieutenant-Colonel C. B. Blackburn, O.B.E., Army Medical Corps.

Lieutenant-Colonel W. L. Kirkwood, Army Medical Corps.

Lieutenant-Colonel J. C. Storey, O.B.E., Army Medical Corps.

Third Military District.

Colonel R. M. Downes, C.M.G., Army Medical Corps.
Major N. H. Fairley, O.B.E., Army Medical Corps.
Lieutenant-Colonel (temporary Colonel) R. Fowler, O.B.E., Army Medical Corps.

APPOINTMENTS.

(*Continued from page 454.*)

Third Military District.

Major (Temporary Lieutenant-Colonel) H. J. Williams, D.S.O., Australian Army Medical Corps, to be Lieutenant-Colonel. Dated 11th November, 1918.
Captain (Honorary Major) J. K. Richards. Dated 14th February, 1919.
Captain D. Crombie. Dated 16th February, 1919.
Captain A. J. Bothamley. Dated 29th March, 1919.
Captain (Temporary Major) K. McK. Doig, M.C., Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain G. Fenton, Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain J. C. G. Glassford, M.C., Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain F. E. Hutchinson, Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain R. G. McPhee, Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain J. S. Reed, Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain R. M. W. Webster, M.C., Australian Army Medical Corps, to be Major. Dated 11th November, 1918.

Fourth Military District.

Major E. J. Brown, Australian Army Medical Corps, to be temporary Lieutenant-Colonel. Dated 11th November, 1918.
Major (Temporary Lieutenant-Colonel) A. R. Clayton, D.S.O., Australian Army Medical Corps, to be Lieutenant-Colonel. Dated 11th November, 1918.
Major (Temporary Lieutenant-Colonel) H. C. Nott, Australian Army Medical Corps, to be Lieutenant-Colonel. Dated 11th November, 1918.
Lieutenant-Colonel H. K. Fry, D.S.O., Australian Army Medical Corps, to be A.D.M.S., 5th Australian Division, and to be temporary Colonel whilst so employed, *vice* Colonel M. H. Downey, D.S.O.. Dated 9th January, 1919.

Fifth Military District.

Lieutenant-Colonel (Temporary Colonel) D. M. McWhae, C.M.G., C.B.E., Australian Army Medical Corps, to be Colonel. Dated 11th November, 1918.

Sixth Military District.

Captain W. I. Clark, M.C., Australian Army Medical Corps, to be Major. Dated 11th November, 1918.
Captain C. G. Thompson, Australian Army Medical Corps, to be Major. Dated 11th November, 1918.

ARMY MEDICAL CORPS (SEA TRANSPORT STAFF).

To be Major—

Honorary Captain E. W. Morris. Dated 24th July, 1918.

CANCELLATION OF APPOINTMENT.

The notification respecting the appointment of Ian McNeil to be Captain in the Army Medical Corps, Australian Imperial Force, contained in Executive Minute No. 69/1919, promulgated in *Commonwealth of Australia Gazette*, No. 9, dated 23rd January, 1919, is cancelled.

APPOINTMENTS TERMINATED.

First Military District.

Captain T. M. Mansfield. Dated 4th May, 1919.

Second Military District.

Major E. S. Harrison. Dated 7th May, 1919.
Major C. C. Minty, M.C.. Dated 1st May, 1919.
Captain B. Van Someren. Dated 21st February, 1919.

Third Military District.

Honorary Colonel A. Honman. Dated 28th February, 1919.
Major J. C. Campbell. Dated 22nd February, 1919.

Fourth Military District.

Major C. T. Turner, M.C.. Dated 6th May, 1919.
Captain D. L. Barlow, M.C.. Dated 8th April, 1919.
Captain M. L. Scott. Dated 11th May, 1919.
Captain A. R. Southwood. Dated 23rd April, 1919.

Australian Naval and Military Expeditionary Forces.

APPOINTMENT TERMINATED.

Second Military District.

Major C. W. Bray. Dated 28th March, 1919.

Australian Military Forces.

The Governor-General in Council has approved of the undermentioned, who has served in the Australian Imperial Force as commissioned officer, being appointed to the Reserve of Officers (temporarily), and being granted honorary rank equivalent to that held by him in the Australian Imperial Force:—

Officer who, on appointment for active service outside Australia, was not serving in the Australian Military Forces.

First Military District.

To be Honorary Captain—
T. M. Mansfield. Dated 1st October, 1916.

Second Military District.

To be Honorary Majors—
K. H. Grieve, M.C.. Dated 24th August, 1917.
C. C. Minty, M.C.. Dated 10th September, 1918.
S. M. O'Riordan. Dated 10th September, 1918.
To be Honorary Captains—
J. L. Harrison. Dated 1st March, 1916.
B. Van Someren. Dated 1st March, 1916.

Third Military District.

To be Honorary Lieutenant-Colonel—
Sir J. W. Barrett, K.B.E.. Dated 6th May, 1915.
To be Honorary Major—
F. T. Beamish. Dated 29th January, 1917.
To be Honorary Captains—
T. S. Campbell. Dated 6th June, 1917.
D. Crombie. Dated 20th April, 1917.

Fourth Military District.

To be Honorary Majors—
M. L. Scott. Dated 22nd May, 1916.
C. T. Turner, M.C.. Dated 24th August, 1917.

APPOINTMENTS, PROMOTIONS, ETC.

Second Military District.

Australian Army Medical Corps Reserve—
Honorary Captain G. C. Harper to relinquish the temporary rank of Major on ceasing to be a member of the Permanent Medical Referee Board. Dated 23rd February, 1919.
Honorary Captain F. M. House to be transferred to the Australian Army Medical Corps Reserve, 5th Military District. Dated 1st December, 1918.

Third Military District.

Australian Army Medical Corps Reserve—
Stuart Patrick Croom and Wiley Drummond Ferguson to be Honorary Captains. Dated 1st April, 1919.
Honorary Captain F. A. Lemon to be granted the temporary rank and pay of Major whilst employed as Radiologist, No. 5 Australian General Hospital, 20th March, 1919, *vice* Honorary Captain H. M. Hewlett, who vacates the appointment and relinquishes the temporary rank of Major. Dated 19th March, 1919.
Honorary Captain (Temporary Major) S. M. Ware vacated the appointment of Member Permanent Medical Referee Board and relinquished the temporary rank of Major. Dated 5th March, 1919.

Fifth Military District.

Australian Army Medical Corps Reserve—
Honorary Captain F. M. House to be transferred from the Australian Army Medical Corps Reserve, 2nd Military District. Dated 1st December, 1918.

Sixth Military District.

Australian Army Medical Corps—
Captain (Temporary Major) C. N. Atkins vacated the appointment of Officer Commanding No. 25 Australian Auxiliary Hospital, and to be part-time member of Permanent Medical Referee Board. Dated 1st March, 1919.

Captain C. N. Atkins retains the temporary rank of Major whilst part-time member of Permanent Medical Referee Board.

GRANT OF HONORARY RANK.

The Governor-General in Council has approved of the undermentioned, who have served in the Australian Imperial Force as commissioned officers having the rank held by them in the Australian Imperial Force confirmed as honorary rank in the Australian Military Forces as follows:—

Officers who, on appointment for active service outside Australia, were serving and are now serving in the Australian Military Forces.

First Military District.

To be Honorary Lieutenant-Colonel—

Captain A. M. McIntosh, Australian Army Medical Corps. Dated 16th January, 1918.

Second Military District.

To be Honorary Majors—

Captain J. W. B. Bean, Australian Army Medical Corps. Dated 6th September, 1915.

Captain E. S. Harrison, Australian Army Medical Corps. Dated 28th January, 1918.

Third Military District.

To be Honorary Lieutenant-Colonel—

Honorary Captain J. Gordon, C.M.G., Australian Army Medical Corps Reserve. Dated 1st January, 1916.

To be Honorary Major—

Captain J. C. Campbell, Australian Army Medical Corps. Dated 14th November, 1916.

The following list of appointments that have been terminated appears in the *Commonwealth of Australia Gazette*, No. 60, of May 22, 1919:—

Australian Imperial Force.

APPOINTMENTS TERMINATED.

Second Military District.

Major H. C. Adams. Dated 30th January, 1919. (This amends the reference to Captain H. C. Adams, which appeared in Executive Minute No. 103-104/19, promulgated on page 174 of *Commonwealth of Australia Gazette*, No. 18, dated 6th February, 1919.)

Captain E. G. Thomson, M.C.. Dated 12th May, 1919.

Third Military District.

Major E. F. Lind. Dated 3rd March, 1919.

Major J. Kennedy. Dated 27th March, 1919.

Captain A. A. McKay. Dated 24th March, 1919.

The following appointments, promotions, etc., have been announced in the *Commonwealth of Australia Gazette*, No. 64, of May 29, 1919:—

Australian Imperial Force.

First Military District.

Major J. S. Smyth, Australian Army Medical Corps, to be temporary Lieutenant-Colonel, whilst commanding 9th Field Ambulance. Dated 3rd November, 1918.

Second Military District.

Lieutenant-Colonel (temporary Colonel) E. W. Fairfax, Australian Army Medical Corps, relinquished the temporary rank of Colonel on relinquishing the appointment of Consulting Physician, 5th Army. Dated 29th December, 1918. (This amends notification regarding this officer which appeared in Executive Minute No. 281, promulgated in *Commonwealth of Australia Gazette*, No. 47/1919.)

Captain J. A. Smith, Australian Army Medical Corps, having resigned, his appointment in the A.I.F. is terminated. Dated 10th February, 1919.

Third Military District.

Captain J. S. Mackay, Army Medical Corps, to be Major. Dated 11th November, 1918.

APPOINTMENTS TERMINATED.

Second Military District.

Captain J. Dawson. Dated 28th May, 1919.

Captain H. S. Thomas. Dated 29th May, 1919.

Captain F. B. Craig. Dated 8th May, 1919.

Captain E. L. D. Parry. Dated 19th May, 1919.

Third Military District.

Captain J. G. Wilson. Dated 31st March, 1919.

Fourth Military District.

Major C. F. Pitcher. Dated 16th June, 1919.

Australian Military Forces.

GRANT OF HONORARY RANK.

The undermentioned, who have served in the Australian Imperial Force as Commissioned Officers, having the rank held by them in the Australian Imperial Force confirmed as Honorary Rank in the Australian Military Forces, or being appointed to the Reserve of Officers (temporarily) and being granted Honorary Rank equivalent to that held by them in the Australian Imperial Force:—

Officers who, on appointment for active service outside Australia, were serving, and are now serving in the Australian Military Forces.

Second Military District.

To be Honorary Major—

Honorary Captain H. C. Adams, Australian Army Medical Corps Reserve. Dated 10th September, 1918.

Third Military District.

To be Honorary Major—

Captain J. Kennedy, Australian Army Medical Corps. Dated 23rd March, 1918.

Officer who, on appointment for active service outside Australia, was not serving in the Australian Military Forces.

Second Military District.

To be Honorary Major—

R. J. Taylor. Dated 24th August, 1917.

Corrigendum.

In the legend to Figure VI. (polygraphic tracings) illustrating Dr. M. D. Silberberg's article, "Notes on Auricular Flutter and Other Cardiac Cases" (see *The Medical Journal of Australia*, May 24, 1919, page 418), "Pulse always poor without treatment" should read "pulse always slow without treatment."

THE VENEREAL DISEASES ACT OF NEW SOUTH WALES.

The Minister of Public Health of New South Wales has announced by proclamation in the *New South Wales Government Gazette*, No. 126, of May 30, 1919, that the *Venereal Diseases Act, 1918*, shall come into operation generally throughout the State on August 1, 1919. On the evening of the same day a discussion on the significance of this *Act* took place in the New South Wales Branch of the British Medical Association. The Director-General of Public Health was present and the Deputy Director-General of Public Health was one of the openers of the discussion. Dr. Arthur, as will be seen at a later date when we publish a résumé of this discussion, emphasized the necessity for a prolonged postponement of the operation of the *Act* until such time as the Government had secured ample accommodation for the treatment of persons suffering from venereal diseases. The majority of the speakers referred to the drafting of the necessary regulations and the proposal was made that the New South Wales Branch of the British Medical Association should be consulted in regard to many of the points at issue. The members were not informed that the *Act* was to come into operation on August 1, 1919.

Among those recently authorized by the Board of Health of New South Wales as Inspectors under Section 50 of the *Cattle Slaughtering and Diseased Animals and Meat Act, 1902*, are Dr. Silvio Monti, Government Medical Officer, Broadwater; Dr. F. J. Burns (B.M.A.), Government Medical Officer, Ganmain, and Dr. H. A. E. Noble (B.M.A.), Government Medical Officer, Warialda, New South Wales.

A proclamation has been published in the *Commonwealth of Australia Gazette* on May 29, 1919, to the effect that epidemic encephalitis is declared to be a quarantinable disease.

Obituary.

ARCHIBALD CAMPBELL MAGAREY.

Archibald Campbell Magarey, whose death was announced in our issue of May 24, 1919, was born at Mount Lofty, near Adelaide, 34 years ago. He was the son of Mr. A. T. Magarey, for some years the Honorary Secretary of the Royal Geographical Society. His mother was an American lady, *née* Virginia Campbell. He was educated at St. Peter's College, Adelaide, and studied medicine at the Adelaide University. He graduated M.B., B.S., in the year 1907. After filling the position of Resident Medical Officer at the Adelaide Sick Children's Hospital, he went to England for further professional study. He worked at King's College and St. Mary's Hospital and in 1910 he took the diplomas of the Royal College of Surgeons of England and of the Royal College of Physicians of London. He then became House Surgeon at St. Mark's Hospital for Cancer, Fistula and other Diseases of the Rectum. On his return to South Australia he settled at Rose Park, a suburb of Adelaide. In 1912 he took the degree of Master of Surgery at the Adelaide University and was appointed Demonstrator of Anatomy in its Medical School. In 1913 he was elected Surgeon to Out-Patients at the Adelaide Sick Children's Hospital. In 1914 he was appointed temporary Assistant Gynæcologist at the Adelaide Hospital and at a later date Assistant Surgeon and full Surgeon to meet the difficulties experienced in the Hospital owing to the absence on active service of several members of the permanent honorary staff. He also served as temporary Surgeon to In-Patients at the Children's Hospital during the greater part of the war period. In all these positions he proved himself a highly capable surgeon, a most conscientious worker and a sympathetic adviser. In May, 1918, he was selected for service abroad and was sent to Rabaul, New Guinea, where he was in control of the military hospital. Quite recently he recounted to the members of the South Australian Branch of the British Medical Association some of his interesting experiences during his period of service. Previous to this he had undertaken a considerable amount of work as a member of the Australian Army Medical Corps Reserve in the State. While at Rabaul he contracted malaria and when he returned early in 1919 he showed signs of the infection, more particularly in a marked loss of weight. It has been noted by many observers that influenza affects a malarious subject more severely than it does a healthy man, and it may be that his lowered resistance was responsible for the fatal course of his illness in May.

When Dr. H. S. Newland left Australia with the Australian Imperial Force, Archibald Campbell Magarey undertook the duties of Honorary Secretary of the South Australian Branch of the British Medical Association. This office entails a great amount of work. Archibald Campbell Magarey performed it in a most excellent manner and contributed not a little to the eminently satisfactory working of the Branch during his term of office. The confidence imposed in him by his colleagues in South Australia is evidenced by the fact that he was chosen to act as a substitute for Dr. W. T. Hayward at the meeting of the Federal Committee in April, 1917. For several years he was associated with this *Journal* in an honorary capacity and nowithstanding the many other calls on his time and energy, he proved himself a most valuable collaborator and an excellent representative. We would emphasize the fact that if the proceedings of the Branch were not always recorded in these columns with the promptness and completeness at which we aim, the fault must be traced to the exigencies of war time and not to any lack of energy on the part of our late colleague.

Archibald Campbell Magarey was married while he was in England and leaves a widow and three young daughters to mourne his loss. He was a burly, healthy looking man in the prime of life. He was capable and energetic and was rapidly acquiring a prominent position of his profession. He was highly esteemed for his gentlemanly bearing and force of character. As a student he was very popular both with his teachers and with his comrades. In his practice he secured the confidence and affection of his patients without any effort, while among his fellow practitioners there were many who were proud to call him friend. His death is a serious loss to the profession and to the State in which he practised. Teiegrams of sympathy have been received from the Councils of the other Branches of the British Medical Association in Australia. He was interred privately in the cemetery at Stirling East.

CLIVE NEWLAND.

In our issue of February 1, 1919, we recorded the death of Clive Newland on January 25, 1919. He was riding a motor cycle on his way to see a patient in the neighbourhood of McLaren Vale, when his cycle collided with a train. He sustained injuries which proved fatal within a short space of time. He was the fourth son of Mr. Simpson Newland and was born at Burnside, South Australia, on September 14, 1878. He received his education at St. Peter's College and at Queen's School, and then entered the University of Adelaide. He spent two years studying for a science degree and then proceeded to the Medical School. In 1902 he graduated in medicine and surgery. In January 1903 he went to England and entered the London Hospital, passing his examinations of the Conjoined Board of the Royal Colleges during the course of the year. He worked the Ophthalmic Department for the remainder of his stay in London. In September of the same year he returned to Australia and bought a practice at Morphett Vale. Before settling he married Majorie Ringwood Hamilton, the daughter of the late Dr. A. A. Hamilton, by whom he had three sons. He was highly esteemed in his district and soon established himself firmly as a competent and kind practitioner. In 1906 he was appointed a justice of the peace and he took a prominent part in local politics. His death is deeply deplored by a large number of friends and patients.

JOHN McINERNY.

John McInerny was born in Limerick in 1852. He matriculated at the London University. From London he proceeded to the Pasteur Institute in Paris and returned after a period of study to private work in London. His later career carried him to America. In 1886 he obtained the degree of M.D. of Columbia University, New York State. Such success attended him in the examinations for this degree that he qualified equally with a fellow student for the position of indoor physician at the Belle Vue Hospital, which appointment was eventually determined by the two equal candidates drawing lots. It thus eventuated that John McInerny took an appointment at the Chambers Street Hospital, and later that of Intern Medical Officer at the French Hospital, New York. At the end of his term in the latter institution, he proceeded to a similar position at the Catholic Protectory, Broome, and then commenced private practice. He returned to London in 1888, intending to work for the Fellowship of the Royal College of Surgeons, but ill-health supervened. He therefore obtained the qualification of the Society of Apothecaries in London in 1889 and then came to Australia, where he commenced practice in North Fitzroy, Victoria, in 1893. He married in 1895. While practising in the suburb referred to he was made physician to out-patients at St. Vincent's Hospital, Melbourne, and carried out these duties for a period of eight years.

John McInerny devoted considerable time and energy to a special study of hip disease. He had intended when in London to visit Vienna for the purpose of studying the specialty of eye work. His state of health did not permit of him following his inclination in this direction.

He cultivated to the full a natural bent for literature and in his earlier days was very interested in archæology. He was known as a good French and Latin scholar.

His favourite out-door recreation was rowing, to which he gave a good deal of time in his youth.

John McInerny took an active part in Irish politics prior to his arrival to Australia. His sympathies in the great war were all with France, in which country he would have liked to have ended his days. He submitted his name for active service, but his age debarred him from anything more than a commission as Captain in the Australian Army Medical Corps Reserve.

In 1916 he began to be troubled with cataract, involving ultimately both eyes, and leading to his retirement from practice at the end of that year. Being greatly benefited by operative treatment he was enabled to resume work in October, 1918; in fact, he worked through the influenza wave of February, 1919, at high pressure. On March 21, 1919, he was stricken with cerebral hæmorrhage, and died on March 30. A widow and daughter survive him.

Dr. G. T. Howard writes:—

"Dr. McInerny was my nearest medical neighbour for a number of years; in the days when I did obstetric work, he was a great comfort in time of trial.

"As a colleague he was absolutely straight—a big, generous, kindly-hearted man, who sacrificed often his own health and comfort to the interests of his patients.

"Generosity and self-sacrifice were his principal characteristics."

ERIC MACLEOD SMITH.

Eric Macleod Smith, whose death occurred on April 19, 1919, was born in 1877 in Croydon, in the south-east of England. His father was well known in banking circles and had held important positions in Yorkshire and in London. Eric Macleod Smith was educated at Shrewsbury. After leaving school, he proceeded to Oxford University and entered Queen's College. He graduated first in arts and then in medicine. In 1904, a year before he took his medical degree, he gained the diplomas of the Conjoined Colleges in London. In 1905 he served for a time as ship's surgeon between England and South America and in 1906 he arrived in New South Wales and obtained the appointment of Medical Officer at the Goodooga Hospital. A short time later he changed his sphere of activity to Brewarrina. In 1911 he returned to England with his young wife, and, after a short period of further study, took his degree of Doctor of Medicine at Oxford. Towards the end of 1912 he returned to New South Wales and settled in Port Macquarie. In 1915 he left New South Wales and settled in Bundaberg, Queensland, where he succeeded the late Dr. T. H. May as surgeon to the hospital.

Both at Bundaberg and the other towns at which he practised, he enjoyed the confidence of his patients and a large measure of popularity. He was a skilful surgeon, a capable practitioner and a conscientious adviser. His genial disposition endeared him to all with whom he came into contact. He worked long and hard for his patients and was never too fatigued to complete the day's task. For some little time he had been in bad health. An operation became necessary, which, however, failed to effect any permanent relief. His death is greatly regretted by everyone in Bundaberg and by his many friends elsewhere.

CLARENCE CECIL HAINS.

Clarence Cecil Hains was killed on April 14, 1918, at Charleroi, Belgium, in an accidental explosion of ammunition. He was on a private visit to the town when the explosions, which lasted throughout the day, commenced. He was called to attend a sick woman in the danger zone and it was while engaged on this errand of mercy that he was wounded. He died without regaining consciousness and was buried in the Charleroi cemetery.

Clarence Cecil Hains was born 25 years ago at Stanmore, New South Wales. He was educated at the Kogarah Public School, where he gained a scholarship admitting him to the Sydney High School. He matriculated in the year 1911 at the Sydney University and obtained his degrees in medicine and surgery in 1916. He served as Resident Medical Officer for nine months at the Women's Hospital, Crown Street, and for one year at the Royal Prince Alfred Hospital. On December 17, 1917, he obtained a commission in the Army Medical Corps, Australian Imperial Force, and proceeded overseas to France. He passed through several engagements without injury.

His jovial and bright nature and his extensive fund of wit made him a delightful companion and helped his patients to recover. He was always eager to learn and was progressive in all his work. He was exacting, and expected others to be as punctual and as thorough as he was himself. He was keen in work and in play. He distinguished himself at tennis, at swimming and at billiards and he was a very skilful photographer. His was a life cut short at the outset, when there was promise of a very useful career.

Correspondence.

WHITE SETTLEMENT IN TROPICAL AUSTRALIA.

Sir,—At lectures by experts at institutes for tropical diseases one hears great stress laid upon the following two items concerning the above:—

Firstly: Whereas (for physiological reasons) many species, both in the animal and vegetable kingdom, cannot be transplanted from one extreme climate to another, we have also many species which stand such transplantation without any ill effects. The negro, the lion, the ostrich belong to the former. The "white man," the horse, cattle, etc., belong to the latter.

Secondly: Two things are essential for a healthy survival in the tropics. The first is a radical change from the European diet; the second is, and this may seem strange to many, a large amount of recreative exercise.

The Australian medical scientist has here a great field before him.

Yours, etc.,

SOUTH SEA ISLANDS.

June 2, 1919.

Books Received.

PENSIONS AND THE PRINCIPLES OF THEIR EVALUATION, by Llewellyn J. Llewellyn, M.B., and A. Bassett Jones, M.B., with a section on Pensions in Relation to the Eye, by W. M. Beaumont; 1919. London: William Heinemann, Ltd. Royal 8vo., pp. 702. Price, 30s. net.

A MANUAL OF GYNECOLOGY, by John Cooke Hirst, M.D.; 1918. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Crown 8vo., pp. 466, with 175 illustrations. Price, 12s. 6d.

GYNECOLOGY, by William Graves, A.B., M.D., F.A.S.C., Second Edition, thoroughly revised; 1918. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Crown 4to., pp. 883, with 490 original illustrations, 100 being in colours. Price, £2 2s.

SURGICAL TREATMENT: A Practical Treatise on the Therapy of Surgical Diseases, for the Use of Practitioners and Students of Surgery, by James Peter Warbasse, M.D., in three volumes, with 2,400 illustrations; 1918. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Royal 8vo., Volume I., pp. 947; Volume II., pp. 829. Price per set of three volumes and separate index volume, in cloth, £7 10s.

NEOPLASTIC DISEASES, A Text-Book on Tumors, by James Ewing, A.M., M.D., Sc.D.; 1919. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Royal 8vo., pp. 1,027, with 479 illustrations. Price, in cloth, £2 10s.

AIDS TO HISTOLOGY, by Alexander Goodall, M.D., F.R.C.P.; 1919. London: Baillière, Tindall & Cox. Foolscap 8vo., pp. 135; illustrated by 30 figures in the text. Price, 3s. net.

THE MEDICAL CLINICS OF NORTH AMERICA, published bi-monthly; Number 1, Volume 2, New York Number; 1918 (July). Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Demy 8vo., pp. 311, with illustrations. Yearly subscription, £2 2s.

THE MEDICAL CLINICS OF NORTH AMERICA, published bi-monthly; Number 2, Volume 2, United States Army Number; 1918 (September). Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Demy 8vo., pp. 332, with illustrations. Yearly subscription, £2 2s.

Medical Appointments.

Dr. G. W. Mason (B.M.A.) has been appointed Government Medical Officer at Millthorpe, New South Wales, Dr. J. T. Paton (B.M.A.) having resigned.

The appointment of Dr. C. R. Quinn (B.M.A.) as Government Medical Officer at Coonamble, New South Wales, is announced.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec. 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

June 10.—N.S.W. Branch, B.M.A., Ethics Committee.
June 12.—Vic. Branch, B.M.A., Council.
June 13.—N.S.W. Branch, B.M.A., Clinical.
June 13.—Q. Branch, B.M.A., Council.
June 13.—S. Aust. Branch, B.M.A., Council.
June 17.—Tas. Branch, B.M.A., Council.
June 17.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
June 18.—W. Aust. Branch, B.M.A., Branch and Council.
June 24.—N.S.W. Branch, B.H.A., Medical Politics Committee; Organization and Science Committee.
June 25.—Vic. Branch, B.M.A., Council.
June 26.—S. Aust. Branch, B.M.A., Annual Meeting.
June 27.—N.S.W. Branch, B.M.A.
June 27.—Q. Branch, B.M.A., Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.

The Secretary of the Victorian Branch is endeavouring to secure copies of the issues of the *British Medical Journal* of the following dates, to complete a file for one of the members. We shall be grateful to any of our readers who has a spare copy of any of the numbers sought, if he will offer them to the Secretary of the Branch:—

1915: April 3 and 10; July 10, 17, 24, 31; August 7 and 21.
1916: July 8, August 5 and 12, November 18.
1918: Title Page and Index, Volume I. and Volume II..